

MARINE CORPS GAZETTE

On November 10, 1775 a Corps of marines was created by a resolution of the Continental Congress. Since that date many thousand men have borne the name marine. In memory of them it is fitting that we who are marines should commemorate the birthday of our Corps by calling to mind the glories of its long and illustrious history

This Month's Cover

● ON THE TENTH OF THIS MONTH, MARINES IN many places will gather for a familiar ceremony. They will hear familiar words— Article 1-55, Marine Corps Manual. And because the words are familiar, it may be that some of their significance will be lost. Familiar words: "... all that is highest in military efficiency and soldierly virtue ... marines will be found equal to every emergency in the future as they have been in the past. ..."

This is a time when such words should have a meaning.

THE MARINE CORPS GAZETTE

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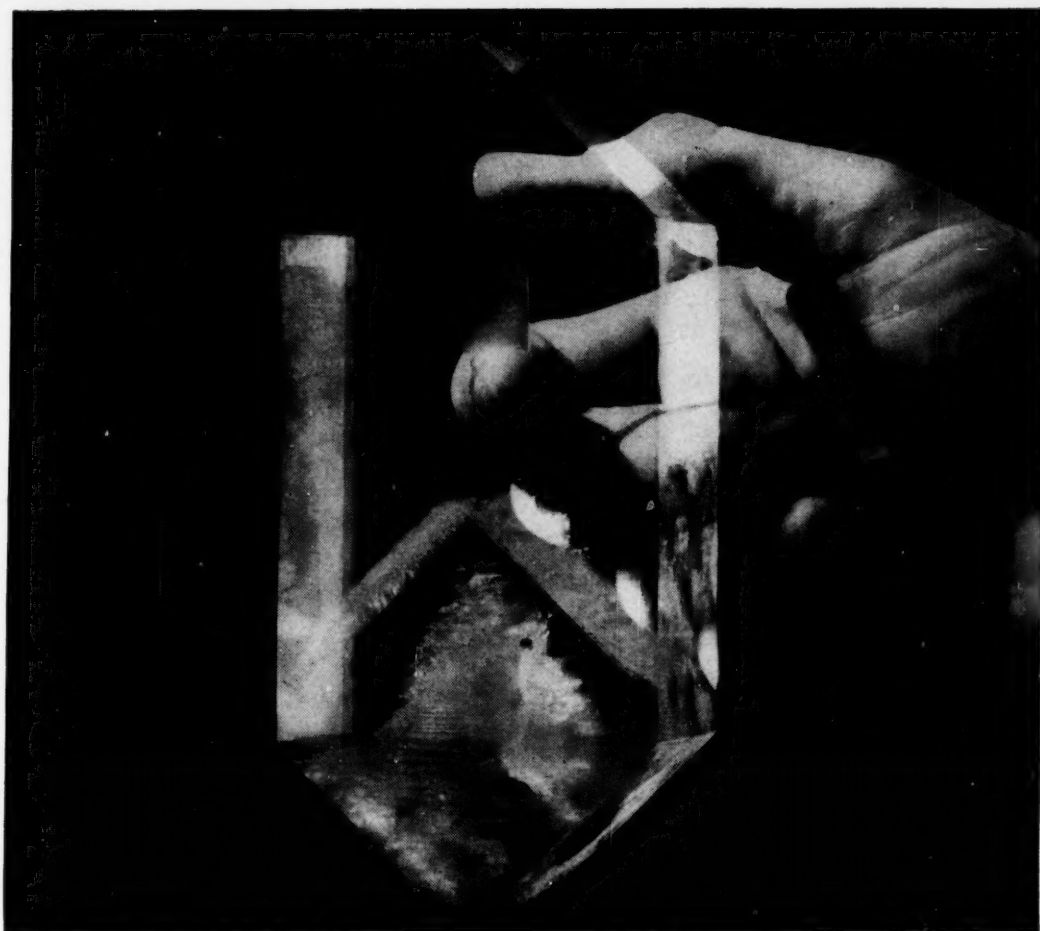
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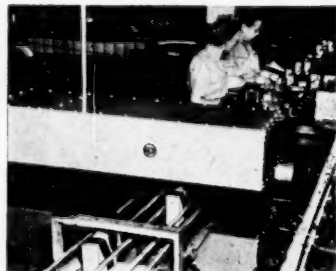
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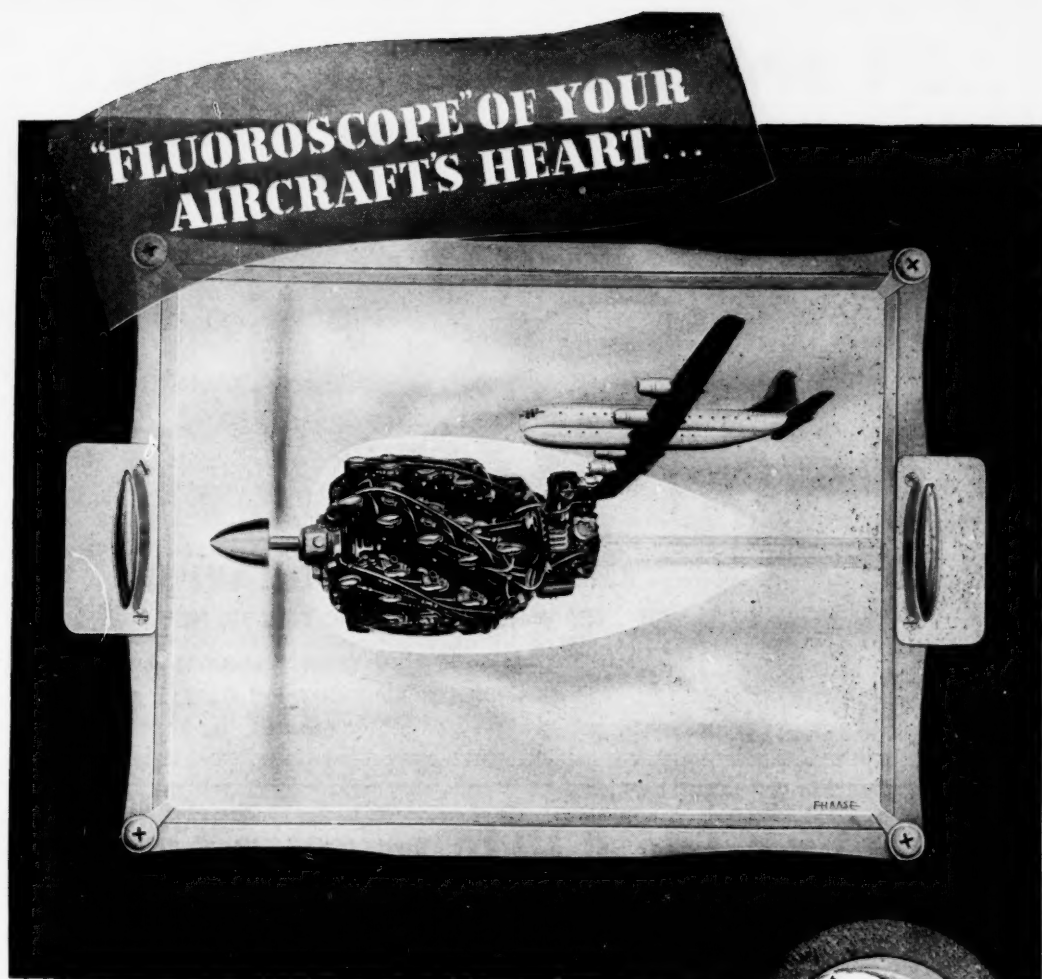
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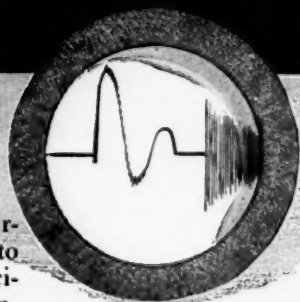


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PASSING IN REVIEW

BOOKS OF INTEREST TO MARINE READERS

Captain in the ETO . . .

COMPANY COMMANDER—Capt Charles B. MacDonald. 278 pages. Washington: Infantry Journal Press. \$3.00

Capt MacDonald, twenty-one years old and fresh from the States, joined the 23d Infantry Regiment, 2d Infantry Division, in France three months after the Normandy landings. He was assigned to Company I as replacement company commander. Wounded and evacuated four months later in Belgium, he rejoined the 23d and took command of Company G, in which capacity he served through VE-day. His story makes a book which every war-time company commander, Army or Marine, will thoroughly enjoy.

The absence of phony touches is particularly gratifying—a very few of these would have killed the book. There are no “restrained” heroics, and the italicized philosophical inserts—which tend to be rather flimsy—are fortunately held to a minimum. It is a well written, well organized, and, apparently, a completely honest book.

It is a curious thing that the author, whether or not intentionally, has managed to convey the feeling of his gradual growth to combat-maturity. Green, nervous, eager-to-please but uncertain in the beginning, he winds up the book as a fatalistic workman, sure in his leadership, grouching over his jobs and the “Push-on-there’s-nothing-out-there” orders from battalion. There were, of course, some big differences between fighting the Germans and fighting the Japanese, but officers who commanded rifle companies in any one of the six Marine divisions will find most of this book familiar. In fact, to the knowledge of this reviewer, it is the first book to delineate adequately the lot of a rifle company in combat.

In the preface, the author says, “The characters in my story are not fictional, and any similarity between them and persons living or dead is intentional, and some of them are dead.” The similarity, Capt MacDonald, is a feather in your cap.

HS

Army Amphibians . . .

DOWN RAMP—BrigGen William F. Heavey, USA, 272 pages, illustrated. Washington: Infantry Journal Press. \$5.00

This is the story of the U. S. Army Special Engineer (Amphibian) Brigades and associated units, covering the period from June, 1942, the date of opening of the Headquarters of the Engineer Amphibian Command at Camp Edwards, Massachusetts, until the end of World War II and the disbandment of these units.

To those soldiers of the Corps of Engineers who participated in landings from North Africa to Japan, this narrative of their activities, written in the dramatized style common to many unit histories, should prove satisfying evidence that they too “won the war.” If they feel the obvious pride of the author in his outfit, they will not object to the sales patter which may prove less palatable to soldiers not so fortunate.

The military historian in search of information about Army amphibian engineer units and dates will find them all here, and in particular detail regarding the 2d Brigade, which the author commanded throughout its existence. The historian with a fine sense of perspective will have to read elsewhere to get his analytical eye properly focused.

Naval officers may be disappointed to find nowhere in the book their concept of an amphibious operation as a projection of seapower. Despite his service as an “amphibian” the author is a soldier, visualizing a trans-water movement primarily as a ferrying operation connecting two points in a single military campaign.

Any Marine officers who think of amphibious operations in terms of Tarawa and Iwo Jima alone should read this book. They will find here the price the Army paid for its long-standing disinterest in amphibious warfare. They may also find reason to reflect upon the conclusion of the author, in which perhaps he is not unique among Army officers, that the entire unloading process, from ship’s hold to shore dump, includ-



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ing control and operation of landing craft, is a military function. Those marines who search the book in vain for a tip of the hat to the Marine Corps' prewar preoccupation with the doctrine and technique of amphibious operations should not be surprised that the Army amphibian, a war baby, is concerned principally with posterity and not ancestry.

WHA

Theory of Combat . . .

THE ART OF WAR ON LAND—LtCol Alfred H. Burne, DSO, RA (Ret'd). 205 pages. Harrisburg: Military Service Publishing Company.

Those who have read LtCol Burne's *Lee, Grant, and Sherman* know him as an able military historian with a pleasing style of writing. *The Art of War on Land* will not detract from his well established reputation in his homeland, England, or in this country.

LtCol Burne's basic thesis is twofold: First, that the principles of war are unchanging through the ages; and second, that mere mechanical adherence to the principles of war is no guarantee of victory. His thinking stems from the very realistic historical observation that "some generals have won battles in spite of transgressing or by ignoring one or more of these principles, while other generals appear to have observed them and yet have suffered defeat."

His explanation of why some generals have been victorious in spite of violating one or more principles of war is based on the important influence of what he calls the "Strands of War." These "Strands of War" are four in number: The commander, the troops, morale, and resources. They are, he contends, factors that must be considered in determining the relative military strength of opposing forces, and which are not involved in the observance of the principles of war. In addition to the "strands" and the "principles," the author recognizes three additional "variable factors": terrain, weather, and luck. While these considerations are often of major importance, Col Burne does not minimize the observance of the principles, for he warns "commanders will ignore or transgress them at their peril." The bulk of the book consists of reviewing historic battles, analyzing them from the standpoint of the observance of the principles of war, the influence of the "strands" on opposing armies, as well as the importance of terrain, weather, and luck.

Battle examples are wisely chosen, and are

thirteen in number. These selected battles cover the span of military history from Kadesh (1288 B.C.) to the Tunisian Campaign. Each battle is explained, and then analyzed point by point. Also, each battle discussion is accompanied by sketches showing the basic maneuvers at critical phases of the battle. The sketches are not cluttered with unimportant detail, but are simple and readily understandable—a pleasant departure from some other military histories.

In one respect in particular the author develops a very interesting thought. Military historians have long extolled the wisdom of strategic use of "interior lines," an attitude largely inspired by Napoleon's declaration, "I am always on interior lines." Col Burne asserts that not only are interior lines of operation inferior to exterior lines, but regardless of Napoleon's statement, the author contends that the Corsican won only a single campaign through the use of interior lines. The author considers this question of interior *vs* exterior lines as he analyzes the various battle examples.

This book presents military history in an interesting and informative manner. The text is spiced and strengthened with well chosen quotations from the writings of eminent military thinkers. In fact, the varied nature of the quotations indicates the great amount of background reading and research that has gone into the preparation of this book. The book accomplishes all that it was intended for. However, there is one additional thing the book could have done. I feel that it is rather regrettable that Col Burne did not choose the Battle of the Bulge as one of his examples; an intelligent and impartial analysis in the style of Col Burne is definitely needed for the Battle of the Bulge.

JDH

Armored Forces . . .

FORGING THE THUNDERBOLT—Mildred H. Gille, 330 pages, not illustrated. Harrisburg: The Military Service Publishing Co. \$4.00

This is the story of the initiation of tank warfare in World War I, the stagnation of armored development during the interval of peace, and the impact of the sweepingly successful German panzer operations at the outset of World War II—all playing their part in the creation of a powerful Armored Force in the U. S. Army which contributed much to the final destruction of Germany.

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I proved little to the Allies and in the subsequent years of peace the new weapon became the "big question mark" in Allied military thought. However, the Germans realized far better than the Allies the important role the tank had played in bringing about their defeat in that trench warfare struggle. The Germans grasped the concept of mechanized war as being ready-made for their World War II strategic plans to effect the speedy conquest of Europe, realizing that a long war could not bring victory to Germany.

During the two decades of peace between wars French military effort was centered on construction of the Maginot Line, and French military thinking was warped by blind trust in those defenses, with the tank relegated to the sole role of an infantry weapon. The British, inventors of the tank, visualized an additional independent role for the tank, but failed to develop their theories due to division of thought as to tactics and severe curtailment of tests in this necessarily expensive field because of slender budgets.

Considering the strength of American industry and American leadership in the automotive field, it is even more surprising that the American record was little better and that American development of the tank and other weapons of mechanized war, as well as the tactics of their employment, generally stagnated.

A few far-seeing junior officers of the U. S. Army, led by Gen Adna Chaffee, staged a long uphill fight, first to keep mechanization alive and then to expand and develop it, throughout the years of peace preceding World War II.

Their difficulties were three-fold. The first difficulty stemmed from inadequacy of funds during the era of disarmament and economy of the twenties and thirties. Limited funds not only severely curtailed research and development of armored materiel, but more important, hampered tactical development, in that mechanized units of sufficient size to conduct thorough tests could not be provided. And mass is just as essential to the attainment of satisfactory results during mechanized maneuvers as it is to the achievement of decisive results on the battlefield.

The second obstacle which had to be overcome was the familiar one of official red tape, bigotry, and resistance to change. The organization of the War Department simply did not lend itself to the introduction of a new arm in the long established and clannish family of infantry, artillery, and cavalry. Intra-arm quarrels and jealousies aggravated the situation. While a minority

of the prewar cavalry branch must be credited with the actual development of the Armored Force, the official cavalry attitude remained devoted to the horse and continued to block expansion of mechanization at the expense of horse cavalry for some time even after the Germans had blitzed Poland!

Experience gained in Africa and Italy resulted in many changes in the Armored Force, including the tactical integration of tanks, infantry, and artillery in the armored division, the streamlining of air support, and the activation of many separate tank battalions to provide infantry tank support. That a powerful force of 16 armored divisions and many separate tank battalions was created during the short span of the war from a prewar nucleus of little more than a single understrength mechanized cavalry regiment is a matter of history although even in retrospect the difficulties seem almost unsurmountable.

Gen Chaffee, the "Father of the Armored Force," did not live to see the final havoc wrought by his armored divisions, including such spectacular achievements as the advance of the 3d Armored Division 55 miles in 12 hours into Germany, the armored envelopment of the Ruhr to accomplish the largest envelopment of military history, the lightning seizure of the Remagen Bridge by the 9th Armored Division, and the crossing of the Elbe by the 2d Armored Division. However, the Germans, pioneers of the panzer-paced *blitzkrieg*, found it turned against them, from both the West and the East, to bring about their collapse with field armies of millions of troops yet virtually intact.

Forging the Thunderbolt, written by the wife of an Army officer, was expanded from material intended as a biography of Gen Adna Chaffee. It is therefore something of an "inside story," presenting a documented explanation of just how it came about that this industrial nation was caught so unprepared (and how it was saved from being even less prepared) in the vital field of mechanization at the outset of the last war. A tribute to Gen Chaffee and his small circle of pioneers in mechanization, it is also a damning account of military red tape, bigotry, inertia, and of petty jealousies and ambitions of individuals and cliques. The restraint and fairness of treatment by the author lends strength to this larger lesson: the importance of open-mindedness in military thought and the necessity of keeping pace with new developments, never more important than today.

AJS

NOVEMBER 1947

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This Month and Next

☛ *Target Eurasia and the Next War* by MAJ GUY RICHARDS in next month's GAZETTE demonstrates how a navy-strong power might successfully attack a land-strong power entrenched in the Europe-Asia heartland. The author, a reserve officer again on active duty, is a well-known magazine and newspaper writer.

☛ *Why a TQM?* by MAJ QUINTIN A. BRADLEY is an explanation and justification of that seldom understood and rarely appreciated staff officer, the transport quartermaster.

☛ *Japan's Navy and the Battle of Midway* by BERTRAM VOGEL which is also scheduled for December is unusual in that it tells of that critical

naval battle as the Japanese commanders saw it.

☛ BASE PLATE MCGURK, after an absence of some months, will appear with a dissertation on practical, not theoretical, leadership.

☛ *Recruiting—First Function of the Corps* by CAPT DENNIS D. NICHOLSON describes how the Division of Recruiting supplies the manpower necessary for a continued Marine Corps.

☛ In next month's installment of FLETCHER PRATT's *The Marines in the Pacific War*, the 1st Marine Division is attached temporarily to Gen MacArthur's command for the Cape Gloucester operation.

Strategical Study of the Atlantic Theatre



✿ ONCE IT WAS POSSIBLE TO SEGREGATE THE theatres of war into relatively small compass. That this time has passed is an indisputable fact following upon the increased speed of various means of transportation, especially aviation. It would, therefore, be a strategical error of the first magnitude to view the possible areas of conflict from the standpoint of the older, more restricted concepts. The World will be one theatre and we must presume that there will be one supreme command.

But for study and likewise for control, there may be two, perhaps more subdivisions. This paper is based on the supposition that the supreme command will organize two major sub-commands, labelled The Pacific Theatre and The Atlantic Theatre. This study focuses upon the latter, which will reach from Pole to Pole and will take in the western and eastern littoral of the Atlantic Ocean.

For us in America this concept has many implications, both political and military. From the standpoint of security, or passive defense, we must regard the countries to the south of us and to the north of us as flanks in the long line of defense, the center of which will be formed by our own Atlantic coastal strip and will include the Caribbean area. The entire line becomes vulnerable to assault by air and by sea, as well as by seaborne and airborne forces. This leads to the conclusion that, no matter what else we may do, it is essential that we keep in being and ready for instant alert, sea and air forces su-

perior to any that can be brought to bear against us by any probable combination of European powers.

No longer can we afford to be haphazard or niggardly in the planning of our sea and air defenses. A false economy here may cause us to lose everything we hope to gain by that economy and much more besides. It seems, therefore, that

the first major problem to be resolved by the joint staff established by recent legislation must revolve about the following three questions. First, how much and what kind of sea power do we require for our security? (2) How much and what kind of air power must we provide? (3) How can these forces best be coordinated for effective employment in case of emergency?

The question of sea forces, which includes also the air and land components of our naval forces (Naval Aviation and Marines) can only be measured in terms of adding up the sum total of European potential in this same category and keeping a substantial margin of superiority in quantity and quality. The naval forces which must be provided, if we are to avoid disaster, cannot at any time be permitted to fall below this minimum standard. Since it is the Congress which must vote the funds, it is the duty of the naval service to employ every means available to inform the Congress of the seriousness of the situation. But it is not all the fault of Congress when we do not have adequate forces. Some modicum of blame must attach to administration politics, and some to the lack of wisdom of the

By MajGen Pedro A. del Valle

Suppose you were a commander faced with the problem of defending half the globe with your flanks marked by the North and South Pole? A well-known Marine general analyzes the problem and discusses the broad outlines of a suggested solution

service leaders themselves. A most strict accounting for every penny and making every penny count must be the watch word of the services.

❁ AS IN THE CASE of the sea forces, the air forces, which likewise must include certain land components thereof, must be measured by adding the sum total of European potential and keeping a substantial margin of superiority in quantity and quality. The same considerations as to the necessity to secure funds for the maintenance of such a force applies here as in the case of sea power. It is incumbent upon the newly formed Air Force to take counsel with itself and come forth with a program, based upon the foregoing considerations, and screened from non-essentials to the last penny. All economies that possibly can be effected must be effected if we are to maintain the Air Force at the strength required for minimum security.

As for the coordination of the sea and air forces in the Atlantic Theatre, there must be a central command, suitably located, and including a staff composed of members of all the armed forces. It seems utterly immaterial whether the Commander-in-Chief of the Atlantic Theatre is a land, sea or air officer. He must know how to use all three effectively if he is to execute his duties acceptably. The selection of such a commander must be by the President upon the advice of the Joint Staff and with the consent of the United States Senate. His is a post of enormous responsibility and upon his judgment may rest the security of the nation at any given time.

Subordinate commands within the Atlantic Theatre necessarily follow as a corollary to this proposition, since it is obvious that one man cannot encompass all the details, regardless of how competent a staff he may have. The three major defense sectors would doubtless follow generally geographical lines, one being the central portion of the theatre including our east coast and the Caribbean, one the North Flank to include the North Pole and the other, the South Flank to include the South Pole. These three commanders, disposing of forces of all arms in proportion to the relative importance of

their sectors, must have wide powers to match their enormous responsibility. The line may be pierced in the center or may be turned at either flank. All three may be threatened and any one sector may, under certain circumstances, become the vital one.

❁ COMMENCING with the north flank of the Atlantic Theatre, we are struck by the possibilities of trans-Arctic flight. To give warning, we must provide, either in peacetime, by purchase and agreement, or in war or threatened war by force, such outposts as the region affords. In addition, the North Flank Commander must maintain close liaison with the North Flank Commander of the Pacific Theatre. Relations with Canada, Newfoundland, Greenland and Iceland, etc. are political matters to be handled by the State Department but are nevertheless so closely related to the military defense of the north flank as to be an integral part thereof. No thinking person can deny that, the farther from our continental shores we push our outposts and listening posts, the earlier the warning of attack and the swifter the concentration against the threatened area. In these times of guided missiles and supersonic aircraft we can neglect nothing in our efforts to get early warning.

The foregoing applies equally to the situation confronting the commander of the south flank of the Atlantic Theatre. However, in this sector there are certain political and geographic variations of the same theme. We have the eastern tip of Brazil as the best practicable outpost on the south flank against an attack from the African coast, although French Senegal, Liberia, and the islands of Ascension and St Helena may afford a line of observation. The recession of both continents away from the center line of the Atlantic as they approach their southern extremities and the absence of usable land masses in the Antarctic regions render the south flank more difficult to turn and easier to defend than the north flank. This becomes increasingly evident if we examine the polar region itself and what lies beyond it and calculate our time and space problem. The southernmost land areas of South America are so remote from the main de-



MAJGEN PEDRO DEL VALLE, born in San Juan, Puerto Rico, in 1893, first entered the Marine Corps in 1915 upon his graduation from the Naval Academy. Participating in the Haiti and San Domingo interventions of

1915-16, he served during World War I as Marine detachment commander aboard the *USS Texas*. In 1919 he was detailed briefly to duty at Quantico and then went to sea again, this time aboard the *USS Wyoming*. His next assignment was as aide to MajGen Joseph H. Pendleton. In 1924 he was stationed at HQMC as Marine Corps representative on the Federal Traffic Board and in 1926 began three years' duty with the Gendarmerie d'Haiti. Returning to the States in 1928, he attended the Field Officers' Course at Quantico, staying on the staff after graduation as an instructor. This tour was twice interrupted by temporary duty in Nicaragua. Sea duty followed, this time aboard the *USS Richmond* as Squadron Marine Officer. While so serving he figured in the operations resulting from the Cuban revolution of 1933, later receiving the Cuban Naval Order of Merit, Second Class. After another short tour at

HQMC he was ordered in 1935 to Rome as assistant Naval attache. Attached to the American embassy, he served as an observer with the Italian forces during the Ethiopian War, receiving the Navy and Marine Corps Medal, the Order of the Crown of Italy, the East African Medal, the Colonial Order of the Star of Italy and the Italian Bronze Medal for Military Valor. Returning to the United States in 1937, he attended the Army War College, then was assigned to HQMC as executive officer of the Division of Plans and Policies. He became the commanding officer of the 11th Marines (Artillery) in March 1941, a position he continued to fill during the initial campaigns in the Solomons. Awarded the Legion of Merit for his outstanding services at Guadalcanal, he returned to the States in 1943 to become president of the Equipment Board. His next tour of overseas duty began on 1 April 1944 as Commanding General, III Corps Artillery. For his employment of artillery during the Guam operation, he was awarded a Gold Star in lieu of a second Legion of Merit. He next became Commanding General of the 1st Marine Division and was awarded the Distinguished Service Medal for his leadership at Okinawa. After V-J Day he was ordered back to HQMC to become Inspector General, which post he held until assigned his present duties as Director of Personnel. MAJGEN DEL VALLE has been a frequent contributor to the *GAZETTE* throughout his Marine Corps career.

fensive area in the United States as to render this flank very unfavorable for the attacker. On the other hand, political considerations in that area are of the utmost importance because of the threat of fifth column penetrations. Furthermore, the northern portion of this sector joins the southern portion of the central sector in the great oil-bearing region of the southern Caribbean. Destruction or neutralization of the oil producing facilities of this region, either by stealth or by force, would be a telling blow against American defense. Therefore, the thought occurs, that, while liaison with the commander of the southern flank of the Pacific Theatre is

important, a very tight liaison between the commander of the central defense sector and the commander of the southern flank is paramount.

☛ IN ORDER to visualize the situation in the central sector, which is of course the vital one, we have only to take a few measurements and note the great circle distances between western Europe and eastern United States. Here the matter of outposts tends to merge defensive and offensive strategy. It is obvious that nothing short of the British Isles, western France, Spain, and northwest Africa can form an adequate outpost system in the defense of the central sector.

It is, therefore, of major military and political importance to maintain such relations in these areas as will insure the possession of these outposts in an emergency. The *modus operandi* for securing this objective is a matter pertinent to the Department of State and not within the strictly military sphere. However, it is so closely entwined in the obvious strategy involved in the defense of the central sector as to be the vital and decisive element in that defense. The failure of our diplomacy to maintain and develop such relations would mean that military force would have to be employed to secure the essential concessions along the line indicated. Present relations with Britain and France appear to be favorable. When we come to Spain and Portugal, in which we must include their North African possessions and islands, we find comparatively stable governments which, however ideologically contrary to our concepts, have ample reason for distrusting those powers which might be classed as potential enemies. Thus far our diplomacy and that of the United Nations has not always been helpful in furthering our military interests in this region. The thought occurs that here we have, made to order and ready for delivery, our most important *point d'appui* on the European continent. An extension from here into the African coast would appear to be a normal development. The Azores and other sectors of east Africa, must likewise be secured. Backing all this must be such a considerable force of all arms, ground, sea and air, as to make it highly improbable that any power, or group of powers, capable of overrunning any portion of our outposts, can proceed with a successful attack across the Atlantic.

Since in the course of time the defensive must pass to the offensive if we are to gain a decisive victory, a strategic study of the Atlantic Theatre must include this phase as well as the defensive discussed in the foregoing pages. Any offensive must, in the nature of things, include both sea-borne and airborne operations, but with a basis of ground troops for the delivery of the final blow and the occupation of such territories as indicated for the execution of the final phase of the campaign. It is true that air power alone may be of sufficient potency to create ruinous havoc in enemy territory, even to the point of making his case hopeless. The potentialities of the air arm, however, should not blind us to the necessity of following up such action with ground forces ferried and supplied by sea forces.

It would seem that no offensive could have any hope of success which was not based upon adequate forces of all three major arms. Effective superiority in the air at the selected points of attack, as well as over the Atlantic and correlated areas, is the first requisite.

✱ A DISCUSSION of the details of air operations in the offensive under discussion is not proposed in this paper. Suffice it to indicate the broad lines upon which this portion of the offensive must move to insure success. It must be presumed that our outpost line is relatively secure, else the offensive could not be initiated. But since the security of the outpost line can be only relative, and since enemy air can override this line and operate in the Atlantic, it is the first task of the Air Force to defeat decisively the enemy air-forces and to prevent as far as practicable their operation against our lines of supply across the Atlantic. During this period, the air offensive must be directed chiefly against enemy air strength, on the ground and in the air. This does not preclude, however, the initiation of a program having for its objective the paralyzation of enemy communications vital to his troop movements, and the neutralization of the important military centers of concentration. Once the enemy's air forces have been reduced to relative impotence, the task of paralyzing his communications and neutralizing his concentrations becomes a paramount necessity, while at the same time the systematic crippling of his centers of production and the harassment of his capital can be commenced. The successful execution of these measures by the Air Force will clear the way for the advance across the Atlantic and the establishment on African or European soil, or both, of the bases of operations for furthering the campaign. The task of the Air Force is inevitably linked to sea and ground forces as far as these will be required for their support, for the seizure and defense of African and European air bases. In this connection it may well be that the auxiliary arms of the Navy, namely Naval Aviation and the Marine Corps, will have to play a part. Carrier-borne aircraft, employing the flexibility peculiar to that arm, will be capable of important supporting or subsidiary air operations in conjunction with the Air Force proper. Likewise they may be used in operations designed either as diversive action to deceive the enemy as to the real point of attack, or in direct support of

Facts and Figures

One of the three facts listed with each sentence correctly fills it out—can you pick out the right one?

1. During the Spanish-American War the Navy suffered _____ casualties.
a. 91 b. 10,032 c. 53,122
2. The first contingent of women marines landed in Hawaii in _____.
a. January, 1945. b. December, 1944. c. February, 1946.
3. The Union general named by Robert E. Lee as the ablest leader to oppose him was _____.
a. Grant. b. McClellan. c. Wallace.
4. The United States has 206 submarines, Russia has _____ submarines.
a. 54. b. 140. c. 271.

5. During World War II, a total of _____ men served in the Marine Corps.
a. 573,424. b. 743,109. c. 1,342,987.
6. _____ women veterans of the U. S. Armed Forces suffered service-connected disabilities during World War II.
a. 74. b. 542. c. 10,675.
7. The Leathernecks in Alaska are supervised from Marine Headquarters out of _____.
a. San Francisco. b. Hawaii. c. Washington.
8. Approximately _____ of the women marines were detailed to some phase of aviation during World War II.
a. 10% b. 20% c. 40%

Answers on page 61.

ground and air operations by the seizure of adequate bases. Thus, the flexibility and advantage which flows from the possession of both sea and air superiority can be exploited to the utmost.

☛ **SIDE BY SIDE** with the air offensive must go the sea offensive. The parallel duty here of the Navy is to clear the theatre of effective enemy sea forces, with particular reference to the submarine which is obviously going to be a major factor. The employment by the Navy of its auxiliary arms, Naval Aviation and the Marine Corps, will have to be coordinated with the action or actions of the Air Force. Just as soon as a fair degree of safety has been achieved over the sea lanes, the Navy must establish and supply the main offensive bases on Europe and Africa. Beyond this lies the natural extension of the naval arm into the Mediterranean for the obvious reason that it offers the best avenue of approach to southern Europe, which will be an area of considerable importance in the furtherance of the offensive. In coordination with the Air Force the Navy must clear Mediterranean waters of effective enemy craft and establish a reasonably safe right-of-way through that ocean.

There is no way in which the details of the handling of the ground forces can be set down in a document of this sort. It is sufficient to indicate that a sizable force of ground troops, which must be of overwhelming strength in the

decisive areas, must be transported by all means available and with the greatest expedition, to the European side. The augmentation of these forces by recruiting in both Europe and Africa among disaffected elements and from other sources may well have major importance in the campaign. The more of the European manpower that can be counted upon, the less will we use up our own, and this is a strategic factor of great importance when one considers the immense burden of productivity which will fall to the lot of nations of this continent in such a war as is here discussed.

No strategic discussion could be complete without a consideration of the necessity for constant and effective probing to obtain accurate intelligence of the enemy, his strength, his plans, his weakness, and his potential. Such a group was set up under a recent law. But this is not enough. Every effort should be made to supplement the activities of the central group through the efforts of the various intelligence sections of the lower echelons. In the strategy of the Atlantic, under the conditions visualized, an even greater importance is attached to counterintelligence, since the probable foe has been successful in fifth column activities to an unprecedented degree. Before a single mission is dispatched abroad, the home front must be scoured clean of our enemies, overt or hidden, lest they play havoc with our military effort by sabotage and dissension.

US MC

KAMIKAZE ATTACK

♣ THURSDAY AFTERNOON, 12 APRIL 1945, FOUND the battleship USS *Tennessee* under Capt John B. Heffernan, USN, operating with an American naval task force in the East China Sea off Okinawa. About 1350 word was received that a flight of enemy Japanese planes, estimated at thirteen in number, was in the immediate area. On receiving the news just described the order was given over the ship's loud - speaker system, "All hands, General Quarters. Man your battle stations. Prepare to resist air attack." Instantly all hands dashed for their action stations. My post was aft at the Marine automatic weapons battery.

It was a beautiful sunny day with a sky almost cloudless and a serenely blue sea. There was a tenseness, and hushed expectancy in the air. But no one was excited. The officers and men were accustomed to it all. As I looked down from the narrow catwalk into the buckets of the 40mm and 20mm batteries on the aft gun platforms I saw the Marine gunners talking to each other occasionally but for the most part they were scanning the sky with a cool eye. All was in readiness.

About 1440 far out to port activity was discerned in the sky. Ten miles away, fighter planes from our Combat Air Patrol had intercepted a group of enemy planes approaching toward the American task force. Several planes were seen to explode in the air and at least two parachutes blossomed in the sky as pilots bailed out. A few minutes later a group of seven enemy planes were made out on the port beam

at an altitude of about 2,000 feet, and the next moment they spread fanwise and began to bore directly at our port side. It was plain that the *Tennessee* had been singled out as the main target of the kamikaze attack.

When the range of the oncoming enemies had closed to about 7,000 yards the *Tennessee's* port 5-inch batteries opened fire. Now the planes were coming at terrific speed. At 4,000 yards

our 40mm guns cut loose. The plane on left of the formation veered off to come in from astern. A five-inch shell hit the plane when it was about 3,500 yards from the ship and it plunged into the sea. A moment later, a second Jap plane was hit by 40mm fire and crash dived on the deck of a screening destroyer alongside about 2,500 yards away, where it exploded and burned violently in a blazing heap.

In spite of the veritable curtain of steel in front of them, the attacking planes swept closer. One of them carried a torpedo under the fuselage. About 2,000 yards the 20mm guns joined in on the targets. Bursting shells pocked the air with black puffs, and the sea was alive with geysers sprouted by the hail of shrapnel. The noise became almost deafening. Antiaircraft fire tore the wing off a third kamikaze diving in and the plane splashed into the sea about 500 yards out. A fourth, also hit, spun into the water in flames some 500 yards short of the ship. By this time the smoke caused by the firing was so intense that the gunners had difficulty in seeing the targets. Suddenly the dark silhouette of a plane was made out in the enveloping smoke.

By MSgt Roger M. Emmons

You are watching the sky and the water on a beautiful sunny day when suddenly out of the blue comes a flight of destruction-bent Japanese aircraft . . . A sea-going first sergeant tells what it was like to man a 40 mm AA battery against the Nipponese

MSGT ROGER M. EMMONS was born and reared in St Paul, Minnesota, where he graduated from Law College with an LLB degree and was admitted to the Minnesota State Bar. Since 1 January 1941 he has served variously as first sergeant with the 2d Marine Division and the Marine Detachment, USS Tennessee. From Pearl Harbor through Okinawa he participated in 14 major engagements and was awarded the Purple Heart and the Navy Commendation Ribbon. Now stationed on Guam after a tour of duty in North China as battalion sergeant major with the 7th Service Regiment.

This plane was about 20 feet over the water, not more than 200 yards away, and coming in like a bat out of hell. Now only the marines aft automatic guns could bear, and as the orange tracers caught the pilot, the plane went out of control, dug its left wing into the water, and plunged in without flame or smoke.

In the midst of all this, a sixth Jap plane cleared the ship's bow and crashed into the water about 75 yards off the starboard bow. Seconds later another plane, identified as a Val, crossed from port to starboard about 2,000 yards ahead of the ship, then banked sharply and dove for the bridge at an angle of 45 degrees. The forward automatic guns opened fire and numerous hits were scored on the attacking craft—one wheel was shot off and smoke trailed from the plane. The Val slid through the barrage, but missed the bridge, roared down the disengaged side of the ship, hitting three automatic guns there—wrecking them all, and then crashed on the quarter-deck, starboard side. The plane, a mass of flaming wreckage, caromed off the starboard aft Marine 40mm quad into the water. Just before the plane crashed it released a 500 pound bomb which penetrated the quarter-deck and detonated.

GySgt William J. "Red" Miller and I were standing on the catwalk overlooking the Marine automatic weapons battery at the time the suicide plane came roaring in overhead and we heard from the head phones the order, "Everybody, take cover." We were about to step through a passageway when there was a bright, searing flash, followed by an extremely violent

crack that hurled us to the deck. The last thing I remember was that the air around us was filled with a blizzard of steel fragments, and then nothing more till I found myself lying on the deck. I picked myself up, dazed and shaken, not fully realizing what had happened. With the exception of a gash on my forehead from which blood trickled down the side of my face, and a few odd chest wounds, I was all right. GySgt Miller was wounded in the leg by some fragments and got up limping.

FROM THE CATWALK we looked down upon scene of the Kamikaze crash and the tragic blast. The deck was spread with men, either killed or seriously wounded. Oil, gasoline and parts of the plane were strewn all over the place, and there was a large jagged hole in the deck where the bomb had penetrated. Several fires had started, and fire fighting parties were busy extinguishing the blazes. To add to the difficulties, the flash had ignited the ready supply of 40mm ammunition stowed inside the gun bucket of the Marine aft battery and the shells were exploding round by round at short intervals. This new disaster was quickly averted when an emergency party working under PlSgt Joseph W. Watson played a hose on the smoldering ammunition.

Getting aft was no easy job as the way was blocked by wreckage. At the foot of the ladder down to the quarter-deck, a sailor was lying badly wounded, and as we passed along he held out his arms and said, "Some one please help me." GySgt Miller and Cpl Charles C. Guider carried him in a stretcher to the nearby first aid station.

The whole action had lasted no more than five minutes. In this brief period of battle there were in all, 26 killed and 116 wounded. The Marine casualties were 14 killed and 24 wounded. The wounded included the commanding officer of the Marine detachment, Capt Arthur L. Adams, USMC, and 1stLt Virgil V. Evans, Jr., USMCR, who were both stationed in sky aft as members of the gun control staff.

All wounded were given first aid as quickly as possible, while the dead were laid on the quarter-deck. Two marines were found to have been blown bodily over the side by the concussion. At sundown that evening the bodies of the dead were committed to the deep in the traditional manner of the sea.

US MC

Part II: The presence of the Marines in North China could not prevent the inevitable conflict between the Chinese Nationalists and the Communists. Even Gen George C. Marshall failed to effect a reconciliation of the dissidents.

The North China Operation



As 1946 wore on, it became more and more apparent that the American mediation effort was doomed to failure. The Communists, increasingly angry at what they termed the “duplicity of the Americans’ declared policy of neutrality” in China’s civil war and their (the Americans) actual policy of furnishing of logistical and transportation assistance to the Nationalists in their (the Nationalists) reextension of control, struck out savagely at Nationalists and Americans alike.

In July, Red units hit twice at the Leathernecks. On 13 July seven marines from a bridge guarding detachment at Lui Shou Ying, 20 miles southwest of Chinwangtao, were surprised and kidnapped by Communists from the 16th Military Sub-district. The marines, members of the

1st Battalion, 7th Marines, had driven to a village about a mile from their outpost where they were purchasing ice. Taken captive by some 80 Communists, they were held until 24 July when a Joint Peace Team from Executive Headquarters, and Intelligence personnel from the 1st Marine Division under Col Charles C. Brown, ACofS, G-2, effected their release. The marines, to quote the Communists, were kidnapped

By Maj Robert A. Churley

“because they invaded Communist liberated territory.” The “invasion” consisted of eight men in a jeep who wanted some ice with which to cool their beer!

At 1205 on 29 July, at Ta Hsiao San Ho (not at An Ping as the incident has been called) 35 miles southeast of Peiping, a supply convoy of Marine trucks and an UNRRA vehicle, guarded by a 50-man patrol detachment, was ambushed

by about 300 Communist troops of the 14th Military Sub-district commanded by a Col Wang. A four hour fire fight in which three marines were killed and 11 wounded (one mortally) followed the Communist ambush. After the battle some 12 Chinese bodies were counted on the field. The Communist attack was well planned and well executed. The Chinese Communists Party Headquarters in Yen-an released a story which claimed "that the CNA and the USMC had attacked the village together, and that the 53d Communist Regiment defended the peace-loving villagers."

Gen Marshall, in his historic analysis of the China situation, given when he departed China, said the "Communist statements regarding the An Ping incident . . . were almost pure fabrication, deliberately misrepresenting a carefully arranged ambush of a Marine convoy with supplies for the maintenance of Executive Headquarters and some UNRRA supplies as a defense against a Marine assault." Answering further the Communist charge, let it be clearly understood that the marines stationed in North China never participated in joint action with the CNA against the Communists, that every volley fired by marines in North China was in defense of their billets and of the security of the vital rail line they guarded.

U.S. government concern for the personal safety of marines stationed in isolated garrisons was alleviated considerably in September 1946, when Nationalist strength in the zone occupied by the 1st Marine Division was considered sufficient to warrant the relinquishment of responsibility for the continuing operation of the vital rail line to the CNA.

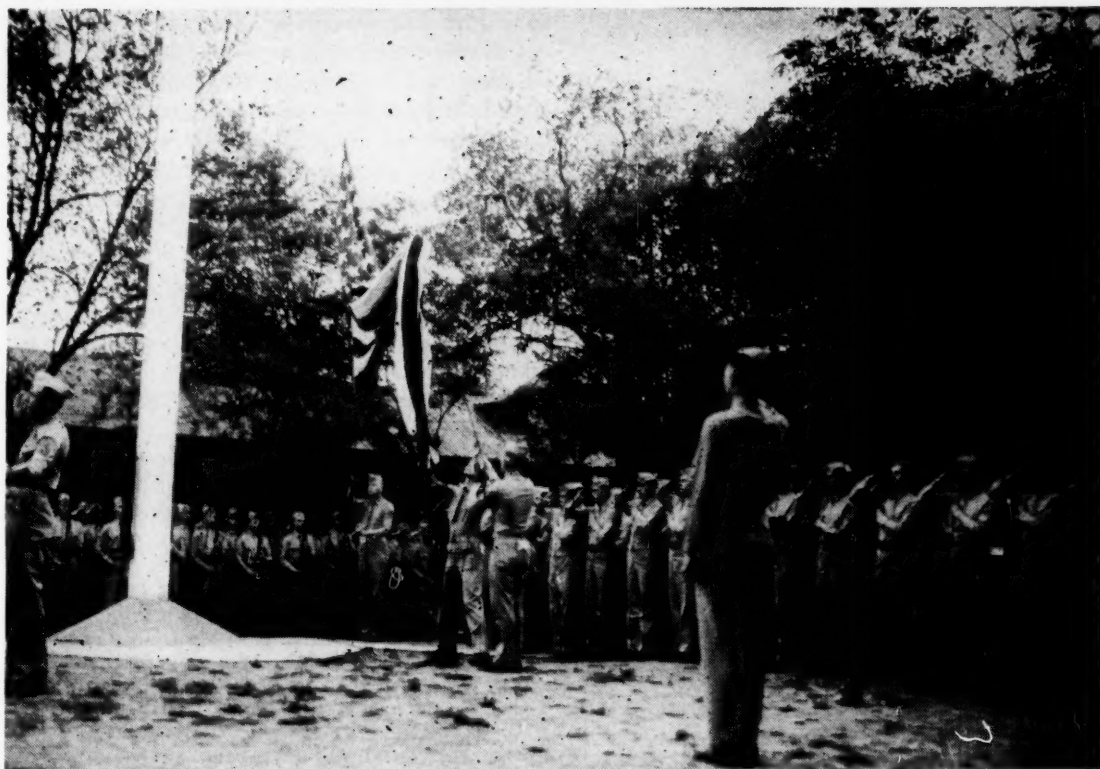
The Chinese government forces had effectively reduced the Communist threat to the line between Peiping and Chinwangtao by a series of sweeps across the North China plain. These sweeps were part of a larger Nationalist plan to sever the land communication route between the Communist forces in North China, whose headquarters were in Yen-an and the Red forces in Manchuria, whose troops were scattered north of the Sungari River line. This larger plan included a CNA sweep of Communists northward out of Hopei, a CNA four-pronged drive into Jehol, and finally encirclement of Kalgan, in 1946, second only to Yen-an in importance to the Communists of China.

By the end of September, the Nationalists had completed their drives in China proper and it

was believed that the Marine Corps' mission of "seizing" strategic areas and holding them pending the arrival in sufficient strength of the forces of the government of China" had been accomplished insofar as the railroad was concerned. Prior to the occupation of the Tangshan coal-producing area by the marines, coal output at KMA was only some 5,000 tons per day, with deliveries all but halted by railroad breaks. The last month the marines occupied Tangshan and guarded the Peiping to Chinwangtao rail line the average coal output by KMA was 11,221 tons per day. Coal to Shanghai (78,500 tons) that month meant power, warmth and light, as did the 14,635 tons shipped to Tsingtao and the 4,403 tons sent to far Hankow. 84,348 tons of coal were delivered to Tientsin and Peiping during the last thirty days the marines were on the line. 30 September saw the completion of one of the Marines most important tasks in North China—the guarding of the Peiping-Chinwangtao railroad. On that date the last Marine Corps outpost along the right-of-way was turned over to the CNA. Soon thereafter, the 5th Marines moved to Peiping and the 7th Marines to Peitaiho and home.

THE LAST THREE MONTHS of 1946 made it quite evident that the American mediative effort in China had failed. The Nationalists and the Communists gave lip-service to the attempt for peace, but in Manchuria, Hopei, and Shantung sporadic fighting threatened to develop into all-out civil war.

November saw the almost complete break-up of the tripartite peace teams in Manchuria. The Generalissimo's action in calling a unilateral Kuomintang-sponsored "National" assembly for the purpose of drafting a constitution for New China was cause for the breaking off of relations between the two opposing factions in Manchuria. Indicative of the attitude of the Reds towards the Nationalist decision to form a new government without the participation of the Communists was a remark by Gen Wu, Lin Piao's Chief of Staff, heard by the author in Chang Chun on 20 November 1946; Gen Wu flatly declared that the Nationalist move "meant war", and rendered useless the continued effort of the peace makers. This, one week after the Generalissimo had issued the Armistice Day, 1946, "cease fire order" for Manchuria. The collapse of the pacification mechanism in Manchuria was followed by the breakdown of negotiations in Nanking between the members of the Three Man Conference and by the return



The bugle sounds, the band plays, and the colors come down for the last time in the 5th Marine Regiment compound in Peiping where they flew for eighteen months.

of the Communist delegation to Yen-an.

In August 1946, Gen Marshall and Ambassador Stuart had listed the obstacles which blocked the road to peace in China, but it was not until late November that the American peacemakers indicated that they believed no concrete successes would come from their work. The breach between the two parties in China was so wide in November that the Ambassador indicated that the Executive Headquarters might be abolished and that the Marines, whose role in the closing months of 1946 and the opening months of 1947 was solely one of support of Executive Headquarters, might be withdrawn.

It was not until January 1947, however, that the military-political picture in China was so black as to force Gen Marshall to abandon his position as mediator and to reevaluate the entire American position in China. As was noted above, one of the chief deterrents to peace in China was Communist distrust of the Americans. Because we professed to be impartial in our desire to help China find peace, but supported only the Nationalist Party logistically and financially, the Communists believed us to be duplicitous.

We, on the other hand, rationalized by saying that we desired the base of the government of China to be broadened to include Nationalists and Communists and that it was to this end that our impartial mediation was directed. We further explained our position by stating that when the government of China did come to include both parties we would support it in the same manner in which we supported the present one-party government of China. Gen Marshall was charged with reestablishing our position as non-partisan, with bringing the two factions together in a united government; not to force such a thing, but to assist in its accomplishment by the Chinese themselves. But the years-old struggle between the Nationalists and the Communists, which has intensified after every meeting between the two parties, was too bitter. The Communists and the Nationalists of China hate each other; each party believed that solution to China's problems could come only after a complete surrender of the other. Gen Marshall blamed the extremists of both China's major parties for the continuing intensity of this hatred, stating that the complete, overwhelming



Without Marine guards, most railroads are often completely inoperative.

suspicion between the extremists of the Government and of the Communist Party has been the greatest obstacle to peace in China. The present Secretary of State inferred that his efforts to achieve peace, so much desired by the masses on both sides, had been repeatedly frustrated by the reactionaries of the Kuomintang and the incendiary radicals of the Kung Chan Tang (Chinese Communist Party). Gen Marshall further stated that China's only hope of salvation lay in the assumption of leadership by the "moderates" of China. In the opinion of the author such a political situation in China is unlikely to

The pioneer battalion of the 1st Division loads its gear on an LSM bound for Guam.



come for many years. The "moderates" of China are disenfranchised, unarmed, with neither ballot power nor fire power. The opposite poles of Nationalism and Communism have attracted unto themselves the political actionists—the people of China as a mass are just "stuck out in the middle."

☛ JANUARY 1947 saw the abandonment of the American effort to help China find peace. The sorrow and bitterness of all-out war now faced China. That war sputtered and popped like a damp firecracker until mid-summer 1947, when its pace picked up; with increased pace came discouragement for the Nationalists.

In February, Communist actions against the Peiping-Tientsin line were endangering the lives of American personnel being evacuated as a result of the discontinuance of Executive Headquarters in Peiping, so American Commissioner Gillem requested that Communist Commissioner Yeh Chien Ying order the Reds to discontinue these attacks until the Americans had been safely evacuated. Commissioner Yeh complied with the request. The Communists were thereby forced to turn their attention to the highways and towns near Peiping. On the night of 9-10 February, Tung Hsien, 16 miles from Peiping was entered, looted, and burned. For several days thereafter, the Commies ranged in the area, hindering the transfer of CNA reinforcements to other areas and creating considerable uneasiness in the ancient capitol.

Of little real importance but of historical interest was the fall of abandoned Yen-an, longtime capitol of Red China, which was entered by Central government troops on 10 March 1947.

☛ THE "HSIN-HO INCIDENT" occurred in April; on the night of 4-5 April an estimated 350 Communist troops attacked the Division ammunition supply point at Hsin-Ho, about five miles northeast of Tangku, in an attempt to obtain ammunition and to destroy our installation. Although partially successful, the attackers were driven off after a fire fight which lasted from just after midnight until about four a.m. The attack was cleverly executed, using three well coordinated thrusts along the eastern perimeter of the dump. An effective ambush, which used three land mines and severe covering fire interdicted the road from Hsin-Ho proper over which a company of Marine reinforcements were arriving to join the fire-fight. Marine casualties totalled 5 dead and 16 wounded, while

the attackers' dead, counted on the field after the skirmish, were 6 in number; about 30 of the enemy were believed wounded. Uniforms, papers, etc. found on the remaining dead, suggested that these, too, were troops of Wu Hung, the aggressive leader identified as the attacker of the same dump the night of 3-4 October, 1946.

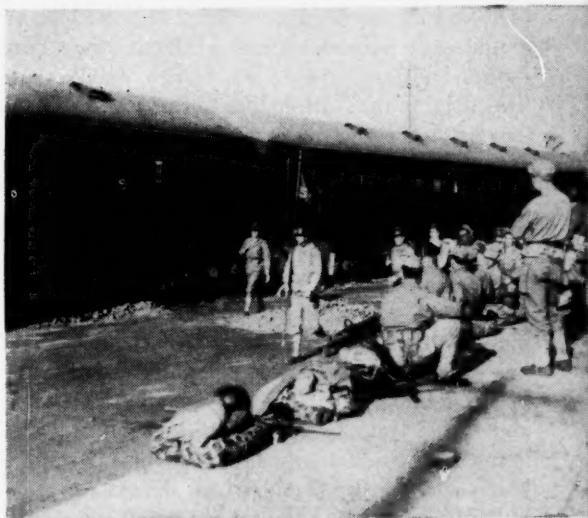
In line with the evacuation of Marines from North China and in pursuance of a policy of concentration of the remaining forces, this dump was evacuated on 21 April and turned over to the CNA.

The coming of Spring failed to bring about the expected resurgence of major military activity in North China and Manchuria; little or no change in dispositions was noted, although a Communist threat along the Peiping-Hankow line necessitated the dispatch of CNA reinforcements to Paoting and ShihChia Chuang. Attacks against the line of communication, however, continued unabated.

The most important development in North China during May was the major attack by dissident elements against the Tientsin-Chinwangtao railroad, which caused an operational time loss for the month of 303½ hours. Between 17 and 20 May, widespread destruction of stations, bridges, rails, and other equipment caused a loss of 200 hours. From Tang Shan on the west to Chinwangtao on the east the Communists ranged virtually unopposed. Chang-Li, a major city on the railroad, was captured, missionaries taken prisoner, and looting and pillage was widespread. From the Luan River (Bridge 66 to the "track-duty marines") to Liu Shou Ying, telephone poles were felled, 80 per cent of the wooden bridges burned out, and a five-span metal bridge near Chang-Li partially demolished. All CNA pillboxes and six switch houses in the area were gutted. Never, when the marines were on this line were the Communists able to create one-tenth this much havoc.

But, as has been the case throughout the entire period of the Marine Corps operation in North China, the Chinese railroad repair crews performed another amazing piece of work in putting the railroad back in operation. These crews had lots of practice—these North China lines have been subjected to attack for almost ten years. The road was usable again by 26 May.

Hostilities around Peitaiho and Chinwangtao caused the evacuation by U.S. Naval landing craft of 74 civilians (mostly Europeans and Americans) from those two towns. The small



Elements of the 5th Marines board trains for Tangku where they will be embarked.

Marine Corps garrison at Chinwangtao was completely evacuated the morning of 26 May.

June 1947 was the last month of duty for the 1st Marine Division in North China. It is the last month whose military activities in that area are described. It was a month in which the offensive passed to the Communists on all fronts, with a resultant deterioration in the Nationalist situation in Manchuria, Hopei, and Shantung.

In Manchuria, Communist elements still threatened the approaches to Chang Chun, were knocking at the gates of Mukden, and menaced the length of the railroad connecting the two

Happy faces crowd the windows of the train as it withdraws from the station.



towns. For the first time in 1947, Red units mounted a counteroffensive from the Port Arthur-Dairen Naval Base territory boundary line, driving the Nationalists out of Pu Lan Tien, located but a few miles north of the boundary of the Russian-dominated area at the tip of the Kwantung Peninsula, which represented the point of farthest Nationalist advance on Dairen.

In Hopei Province, from which the last of the 1st Marine Division units withdrew on 19 June, the Nationalist military situation was equally black. During the mid-period of the month, a new theater of operation, the long quiet sector between Tsang Hsien, 64 miles south of Tientsin, and Ching-Hai, 25 miles southwest of Tientsin, flared into conflict. By the time the last of the Marine troops were embarked aboard the *Renville*, the entire 40 miles of railroad between the two cities had fallen to the Reds.

It was thus that a feeling of uneasiness pervaded Tientsin as the time for the Marine departure drew closer. A strict curfew was imposed, troop movements through the city increased, tension was the order of the day.

Viewing the military, political, and economic situation in North China from the vantage point of retrospection, we come to realize that from the standpoint of the Nationalist government in China, it reached its zenith just a year ago May and has deteriorated ever since.

In May 1946, the Nationalist government controlled the big cities of North China and Shantung and were on the offensive in Manchuria. The key lines of communication, the strategic littoral, both were largely Nationalist dominated. The Japanese influence in Asia was no longer a threat to Chinese hegemony; the Russian main body had withdrawn; negotiations for Chinese entry into the Port-Arthur-Dairen Naval Base territory were under way. Hopei and Shantung were relatively quiet; the dangers of a "short of coal" winter were past. The Marines were being successful in maintaining the operation of the railroad linking North China and Manchuria. The threat of inflation was not yet a spectre threatening the very existence of the Nationalist government. The United States was still everywhere in evidence; its peace-making representatives still actively trying to prevent the breakup which everywhere threatened, but was nowhere of really critical proportions.

June 1947 in China was far different. The Nationalist house of cards was tottering, the hot winds of disaster blew everywhere. Continued

Communist raiding of the lines of communication endangered the arteries of commerce and military supply. Tsingtao was virtually isolated once again, cut off from its life-giving hinterland by Red action along the Tsingtao-Tsinan railroad. Tientsin was tense, half afraid as it waited out the curfew-lengthened nights, looking askance at the departure of the marines who had, at least by the psychological effect of their presence, kept the danger of actual fighting from its door. The southern approach of Tientsin was in Communist hands; its "alimentary canal", the Tientsin-Tsang Hsien sector of the Tientsin-Pukow railroad, which was the vital line between Tientsin's major source of food and the city, cut by Communist action.

Inflation was everywhere dangerous; exchange leaped to the neighborhood of 50,000 to 1; import and export trade, mainstay of the busy port, ground to a virtual halt.

Peiping and Paoting, the other two cities in Hopei's "triangle", were also threatened, one by civil unrest, purges, and by student strikes; the other by military encirclement and blockade.

The outlook for continued occupation by the Nationalists of the key cities of Manchuria was not good, the long-expected Nationalist Spring offensive was not forthcoming. Instead, the Communists seemed everywhere in Manchuria to be revitalized and gaining momentum in their strikes against the government.

In summary, consider whether or not our North China operation was a successful one. An analysis of the Marine Corps' role in China—the acceptance of the surrender of the Japanese and their repatriation; the seizing of strategic areas and maintaining the security of such areas; the bringing of a steadying influence to bear on the volcanic political situation, and the tactical and logistical support of Executive Headquarters shows the value of the North China operation. The effective removal of the influence of Japan was accomplished by the capitulation and repatriation of Japanese military and civilians. The seizure of vital areas and communication lines insured peace and an opportunity for reconstruction in the areas occupied by the Marines. The best indication of the steadying influence of the Marines is the crisis which their departure brought to the cities of North China. Curfews, troop movements, and tension have replaced the quiet feeling of safety the citizens of Peiping and Tientsin enjoyed while the Marines were garrisoned in those cities. US MC

In Brief

An *airfield dredged up from the sea* was one of the more fantastic accomplishments of the "Can Do" Seabees. French Frigate Shoals, 552 miles northwest of Honolulu, scarcely break the surface of the Pacific, yet the 5th Construction Battalion, working from 13 August 1942 until 17 March 1943, succeeded in scooping up enough coral to build a landing strip 3,100 feet long and 250 feet wide, rimming the edge with sheet metal to keep it from washing away.

A *steam-driven LST*, first of its kind, was launched recently at Boston. The new ship is 382 feet over-all—55 feet longer than its wartime predecessor and several knots faster—has a smoke stack, two 5-inch dual purpose guns, enlarged crew and troop quarters, greater tank, truck, and cargo capacity, and a longer bow ramp. Other improvements are a shallower draft at the bow and two cargo booms to speed unloading.

The *Navy Unit Commendation* has been awarded the Amphibious Reconnaissance Battalion, FMF, Pacific, for its "unique service in executing secret reconnaissance missions on enemy-held islands." Specifically mentioned are the Battalion's operations in the Gilberts, Marshalls, Marianas, and Ryukyus. Personnel attached to the unit for one or more of the above operations are entitled to wear the unit commendation ribbon.

Service personnel will pay income tax in the same manner as civilians after 1 January 1949 under Public Law 384 (80th Congress). The present exemptions—all enlisted pay and \$1500 of officers' service pay—remain effective throughout the calendar year of 1948. Automatic deferment of income tax payments of returns for persons at sea or on foreign duty will also be terminated not later than 31 December 1947.

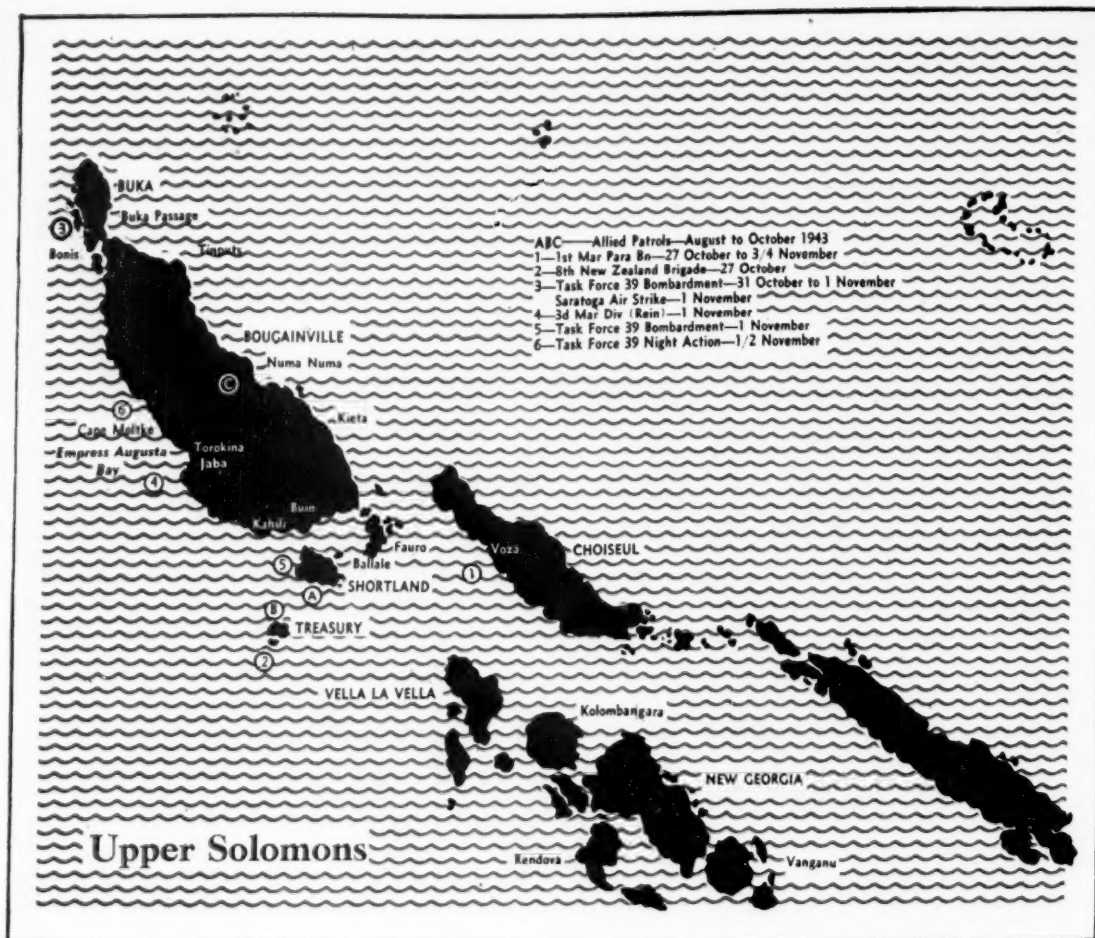
Two new submarines, the Tang and Trigger, named after two subs lost in the Pacific in 1945, will be the fastest underseas craft in the world upon their completion in 1951. Radical departures from conventional designs are expected; captured German U-boats plus much captured information furnishing the basis for many of the changes.

A *Navy Occupation Service Medal* for duty in certain occupied enemy territories has been established by the Secretary of the Navy. Eligibility requirements will be announced at a later date. Until that time no one is authorized to wear the ribbon which will be the same as that of the Army Occupation Medal.

An *intensive reserve recruiting campaign* begins 10 November with the goal of enlisting 30,000 organized reserves and 70,000 volunteer reserves by 30 January 1948. Congress has directed that the reserve component be fully organized by that date. The recruiting will be a joint effort of the Division of Recruiting and the Division of Reserve.

With the zipping up of the USS *Washington* and the *North Carolina*, the last major units of the 982 ships assigned the Atlantic Reserve Fleet are now in moth balls. The captain of the *North Carolina* stated that the two battleships were "in better shape today than at any time during their fighting careers." The entire Fleet will be inactivated by 1 January.

Amphibious exercises involving 9,000 Navy and Marine Corps personnel, 43 ships, and 300 planes are being held along the Southern California coast from 10 October until 10 November. Elements of the 1st Marine Division; Amphibious Force, Pacific Fleet; and supporting Marine and Naval aviation will secure "beachheads" at Coronado, San Clemente Island, and Camp Pendleton.



End Run in the Solomons

"In smashing through swamp, jungle, and Japs to build that air strip, your men have proven there is neither bull nor dozing at Torokina. A well done to them all."—Halsey.

THE FOREGOING QUOTE IS A DISPATCH SENT in December 1943 by Adm W. F. Halsey, then commander South Pacific, to the Commanding General, I Marine Amphibious Corps, at Empress Augusta Bay, Bougainville, British Solomon Islands. At first impression the Bougainville operation, in the fall of 1943, was apparently just another hard stepping stone, laboriously hewed from the dense Solomons jungle, on the long and weary road to the inner Japanese Empire. Certainly, to the small fry in the

By LtCol Alpha L. Bowser, Jr.

ranks, it was just another case of fighting that "strange little man," in a world consisting of mud, jungle, mosquitoes, the legendary enemy sniper, and "C" rations. Actually, seen in its proper perspective, Bougainville constituted a major portion of the death blow to the South Pacific segment of the Japanese "outer ring."

Guadalcanal and New Guinea represented the Allied toe-hold in the South and Southwest Pacific. Bougainville, Cape Gloucester (including Arawe), and the surprising seizure of Los Negros and the Lorengau Airdrome in the Admiralties, set the final stage for neutralizing the Japanese ogre of the South Pacific—Rabaul. Not only did these operations remove the necessity

The Japs at Bougainville never completely surrendered until 2 September 1945, but the island had actually been overcome back in 1943 when Army, Marine, and New Zealand troops went ashore and pushed through steaming jungles to Cape Torokina

for direct assault against the Rabaul fortress itself, but eliminated the need for Allied seizure of such outer bastions as the formidable enemy installations at Kavieng on New Ireland. Bougainville also represented a threat from the south to advanced Japanese bases in the Central Pacific.

In view of the conditions existing in the South Pacific Area in the summer and fall of 1943, the Bougainville operation was a bold and daring move. New Georgia and Vella Lavella in the Central Solomons were only recent conquests (July, August, and September, 1943), at a cost higher than expected and behind their scheduled time of completion. Our air arm was exhibiting all kinds of superiority in quality over the enemy in this theater, but quantity was still near the balance point. Fighter cover for all operations was rare, and really adequate fighter cover was virtually unheard of. Our air arm was doing a yeoman job of beating down the enemy's operating airfields in the theater; but they could not all be kept down all of the time. The Jap soldier himself had shown no signs of weakening, and to the contrary, had increased his reputation for stubborn and canny fighting by his very creditable performance in New Georgia. In addition, the Japanese still owned a considerable combatant fleet at this time. Our combatant Navy, available to support an operation in this theater consisted of cruisers, destroyers and the "Old Sara" (*Saratoga*). The most real and serious shortage however, was in shipping. The loss of anything larger than a rubber boat in the South Pacific at this time was viewed as a catastrophe of major proportions.

AMERICAN DIVISIONS in the Solomons area in the late summer of 1943 were as follows:

- (1) the 3d Marine Division at Guadalcanal, fresh and well equipped, but as yet untried;
- (2) the 37th Army Division, just finishing up in New Georgia;
- (3) the 25th Army Division, also in New Georgia, but well below strength both numerically and physically;
- (4) the 43d Army Division, in New Georgia, scheduled for rest and rehabilitation in New

Zealand. Combatant troops of the 1 Marine Amphibious Corps were:

- (1) the 1st Marine Raider Regiment (2 battalions only, in New Georgia);
- (2) the 2d Raider Regiment (2 battalions only);
- (3) three Marine parachute battalions;
- (4) the 3d Defense Battalion;
- (5) the 2d 155mm Gun Battalion.

In addition to the foregoing units the 3d New Zealand Division (less a brigade at Vella Lavella) was at Guadalcanal, and the U.S. Americal Division, earmarked for the Solomons, was in the Fijis.

AT FIRST GLANCE, this was an imposing array of might for the Solomons area. However, for reasons too numerous to be related here, only a portion of these units was available for imposing our will on the enemy beyond New Georgia. Actually, the only combatant troops available for the Bougainville-Treasury operation were the 3d Marine Division, the 37th Army Division, the 2d Raider Regiment (two battalions), three Marine parachute battalions, the 8th New Zealand Brigade, the 3d Marine Defense Battalion, and the 2d Marine 155mm Gun Battalion. Nor did the troops available present a true picture of our strength, since less than half of this number could be transported to the scene of action in one trip, and then only by judicious planning of supplies and equipment. As an example of the high premium placed on AKAs and APAs; these types were limited to approximately four hours unloading time in order to reduce to a minimum their exposure to air and submarine attack. Briefly this meant about 500 tons per ship; not a very profitable pay load with ship bottoms at a premium.

Before the final plan of operation for the Bougainville-Treasury Area was adopted the proposed plans for our advance up the Solomons beyond New Georgia were many and varied. The Shortlands Islands and Treasury Island, lying just off the southwest corner of Bougainville, were eyed with a view to establishing a foothold there, as a base for further operations against South Bougainville, and seizure of Ballale

and Kahili Airdromes. A landing on Choiseul, construction of a fighter field and staging base, for further operations against the north coast of Bougainville in the vicinity of Kieta, was also considered. A landing anywhere on Bougainville itself was the last to be considered, since it was well known that short of the famed Rabaul this was the Jap stronghold of the Bismarck-Solomons area. Many serious obstacles to a landing on Bougainville proper were evident. Total enemy strength on Bougainville was variously estimated at from 25,000 to 45,000, including the renowned Japanese 6th Division. It was also known that southern Bougainville, from the vicinity of Jaba to Kieta, was sufficiently well organized and well provisioned to withstand any but the most furious and prolonged (as well as costly) assault. The northern third of Bougainville was too distant for effective fighter cover. Bougainville, with its long and tortuous coastline, also offered good possibilities for the enemy to reenforce any portion of the island, either locally or from the Rabaul area, by overnight barging operations. To seize existing enemy airfields meant costly operations, possibly more costly than we could afford. To land where there were no fields meant construction of airfields from scratch in the dense jungle; provided, that is, that suitable terrain was selected for such construction. It was not a cheerful picture.

✱ BEGINNING in August 1943, amphibious patrolling, on a scale heretofore unknown, was initiated against the projected objectives. During August, September, and October, 1943, our patrols were put into the Shortlands, Treasury, Choiseul, and both the east and west coasts of Bougainville. Needless to say, the intelligence obtained by these skillfully executed amphibious patrols proved of inestimable value in the formulation of the estimate, decision, and plans for the proposed operations.*

The combination of this patrol information along with coast watcher intelligence reports and other intelligence estimates, served as a basis for definitely eliminating some of the plans that had previously received serious consideration; thus delimiting the proposed plans. The Buka area in North Bougainville, although suitable in many respects, was too distant from our air bases for fighter cover operations. The Kieta and Numanuma areas were eliminated because of strong

Japanese garrisons known to be stationed there; as well as the ease of reenforcing these garrisons along the east coast. The Buin-Kahili area was rejected because of its very strong defenses. The Shortlands Islands dropped from the picture due to insufficient usable beach areas. (This was before the heyday of amphtracs and DUKWs.) Elimination of these areas narrowed the field to Choiseul, Treasury, and portions of the west coast of Bougainville.

Available information indicated that Choiseul, although poorly defended, was not well suited to airfield construction. In addition there was the obvious fact that its possession would not represent a sufficient advance up the Solomons. Treasury Island, although further along the line of advance was insufficient in size for a major base. Patrol information however, indicated some usable beach areas and light enemy defenses so it was included in the over-all plan.

One of our patrols had been landed in the vicinity of the Laruma River, north of Cape Torokina, in Empress Augusta Bay. Although this patrol had obtained very little positive information, the negative information gained was of great value. It was apparent that this area was unoccupied and only lightly and occasionally patrolled by the enemy. Aerial reconnaissance, aerial photo study, and coast watcher intelligence confirmed this; and in addition, indicated that the area fell into a rather natural beachhead area, about eight miles by six miles, flanked by rivers generally perpendicular to the coastline. The biggest question mark, and most important, of the Torokina area, was the character of the ground itself. All intelligence pointed up to the fact that for a considerable distance inland it was very swampy, and that air field construction would have to be accomplished at some distance from the coastline. However, the advantages to be gained by landing in this area, outweighed the unknown terrain factors. The die was cast to land the main force near Torokina, with a diversionary landing on Choiseul, and a secondary landing on Treasury.

✱ THE PRIMARY OBJECTIVE of the Bougainville operation was to establish an air base that would advance our South Pacific air arm to an efficient and effective operating distance from Rabaul. Initially, establishment of such a base would provide fighter cover for bomber strikes flown from New Georgia and Guadalcanal; and eventually, would provide an operating base for the bombers themselves. From this distance, about 270

*For a detailed account of the operations of these patrols, see Col W. F. Coleman's *Amphibious Reconnaissance Patrols*, *Gazette*, December 1945 and January 1946.



Marine landing craft enter Empress Augusta Bay. The Japs expected a landing in the Torokina area, sending down reinforcements, but the Cape was quickly secured.

miles, Rabaul, and all the enemy shipping working in and out of this important hub would be at the mercy of our air arm.

The Third Amphibious Force, with troops of the I Marine Amphibious Corps, was designated to execute the Bougainville-Treasury Operation. The final plan of operations resembled nothing more than a deceptive left end run, around the right (southwest) flank of the South Bougainville defenses. The 3d Marine Division, Reinforced, was selected to carry the ball, while other elements of the force ran interference, and provided the necessary "razzle-dazzle" to throw the opposition off balance. The play was so well conceived and executed that by the time the Japanese fully realized what had happened, the 3d Marine Division had touched the ball down behind the goal line at Torokina, and the whole South Pacific Allied Forces were lining up to kick the extra point.

The execution of the Bougainville-Treasury plan was as follows: (see encircled numbers in Figure I.)

(1) 27 October, the 1st Marine Parachute Battalion made a diversionary landing near Voza on Choiseul. Having thrown sufficient sand in the enemy's eyes by 3 November, this battalion was withdrawn the night of 3-4 November.

(2) 27 October, the 8th Brigade of the 3d New Zealand Division landed on Treasury Island, quickly overcame enemy resistance, and went about the business of constructing a fighter field; as well as further confusing the Jap as to our true intentions in regard to Bougainville,

(3) the night of 31 October-1 November, ships of Task Force 39 bombarded the Buka-

Bonis area in North Bougainville. On 1 November, planes of the *Saratoga* struck Buka-Bonis as a follow-up to the previous night's bombardment.

(4) 1 November, the 3d Marine Division, Reinforced, landed at Torokina in Empress Augusta Bay (when last seen the previous night, the transports had been headed directly for the Shortlands),

(5) 1 November, ships of Task Force 39 having come down from Buka at a "high port" during the night, bombarded the Shortlands.

(6) Night of 1-2 November, ships of Task Force 39 defeated a Japanese cruiser-destroyer task force off Cape Moltke.

To add to the general confusion and discomfiture of the enemy, our Southern Pacific air was aided in striking the Bismarck-Solomons enemy airfields during this period, by bombers from Gen MacArthur's Southwest Pacific air command. Compared to subsequent operations of the war, the air-sea-ground show narrated above was small peanuts. However, it must be remembered that these operations were executed on the proverbial shoestring, with no extra laces around in case anything went very wrong. The margin of superiority that inspires confidence, although vastly increased over the Guadalcanal days, was still very slim at this period of the South Pacific war.

That the enemy was bitterly confused and unable to divine our true intentions in the Bougainville-Treasury area, became very apparent. Furthermore, he appeared to remain quite confused except for a few abortive, piecemeal attempts against the Torokina beachhead, until



These marines have just been ambushed, two killed (body next to tank). The rifleman near the tank is scanning the trees for Japs while his buddies cover him.

several months later. By landing at Torokina, our main force had enveloped the extreme right flank of the South Bougainville defenses, and were fairly astride the enemy's line of communications to the all-important Rabaul. The Japanese may have had a slight inkling that we were casting an avaricious eye on the Torokina area. They had placed a reinforced company in and around Cape Torokina itself, a few weeks before our landing. Although this strong outpost greeted the landing waves with a hail of lead on D-day, due to the aggressiveness of the 3d Marines, it was no threat to the beachhead by the night of D-day. A successful Allied foothold in Empress Augusta Bay could be developed into a stranglehold on South Bougainville, and was tantamount to spitting in the Rabaul's dragon's eye. Countermeasures obviously could be and were expected. As usual, the enemy gave us the opportunity to chew him to pieces in small bits at a time, and when opportunity knocked, the door was gladly opened.

☛ THE FIRST ATTEMPT at counter-action (other than the enemy's D-day air reaction)

came at sea, when a Japanese cruiser-destroyer force from Rabaul attempted to run in on our transports at Empress Augusta Bay on the night of 1-2 November. The ships of Task Force 39 under Adm Merrill brought this sortie up with a "round turn", in a hammer and tongs night action off Cape Moltke. The Japanese task force was outmaneuvered, outwitted, and outfought in a game at which they had excelled earlier in this theater. ViceAdm Omori, Imperial Japanese Navy, was interrogated on this action by officers of the Strategic Bombing Survey at Tokyo, in November, 1945. In part the Admiral said, "Our operations during that period, commenced on 31 October, 1943 . . . At 1000, that date, I received orders to get underway to intercept an American task force that had departed Guadalcanal, and was steaming up the Solomon Islands. We did not know its destination, but it was my opinion that it was the Shortland Islands. We got underway at 1500, 31 October, with two heavy cruisers, two light cruisers, and two destroyers, toward the Treasury Islands. At 0030, 1 November, I received a report that American ships were near Buka, [How true: TF 39 was

bombarding Buka-Bonis!] . . . we had no further contact report, so turned northwest again, returning to Rabaul and anchoring at 0900, 1 November [the Leathernecks of the 3d Marine Division had landed at Torokina an hour and half ago]. Immediately on returning to Rabaul, I was notified that American forces were landing at Cape Torokina. I was ordered to take a force and make a counterlanding . . . one thousand military personnel were being loaded on five destroyer transports. At 1500, 1 November, I got underway with three heavy cruisers, one light cruiser, six destroyers, and five destroyer transports. At 1920, in view of the initial rendezvous delay, the additional delay due to avoiding submarines, the limiting speed of the destroyer transports, and the fact that we were sighted by an American plane, I recommended that the counterlanding not be attempted, but that our combatant ships attempt to destroy the American transports unloading in the vicinity of Empress Augusta Bay. Approval of this plan was received. The five destroyer transports returned to Rabaul. The remaining ships increased

with work started on the fighter strip at the coastline. A tentative location for a bomber strip was selected by protected reconnaissance ahead of the troop advance. The major enemy of speedy progress was in the form of what appeared to be endless and bottomless swamp land. Japanese land reaction was still slow in materializing, but 7 and 8 November, the enemy struck at both flanks of the beachhead. The action on the right flank had been expected as enemy contact had been made by the 2d Raider Regiment near Piva Village, on the trail leading to Numa-Numa on the east coast of the island. The left flank action was in the form of a counterlanding. An estimated 500 Japanese were landed from destroyer transports in the vicinity of Atsinima Bay and the Laruma River, early on the morning of 7 November. It was later determined from POW reports, that the Japanese had originally planned to land approximately 3,000 troops on our left flank supported by naval gunfire, and that this echelon of 7 November was only the first. The failure of succeeding echelons to arrive may be attributed to our effec-

" . . . The primary objective of the Bougainville operation was to establish an air base that would advance our South Pacific air arm to an efficient and effective operating distance from Rabaul. Such a base would provide fighter cover for bomber strikes . . . "

speed to 32 knots and proceeded to a point . . . " and ViceAdm Omori goes on to tell of his action (and defeat) at the hands of Adm Merrill's Task Force 39, in the vicinity of Cape Moltke. In this action, Task Force 39 thrashed the enemy soundly in night maneuvering at high speeds, night gunnery, and night torpedo attacks. Adm Omori admitted in 1945 to the following losses in this engagement: one light cruiser, *Sendai*, sunk by gunfire; one destroyer *Hatsukaze*, sunk by collision; two destroyers, *Shiratsuyu* and *Samidake*, damaged by collision, one heavy cruiser, *Myoko*, hit by gunfire and damaged by collision and one heavy cruiser, *Haguro*, damaged by shell fire. Out of ten ships *Adm Omori took into action, only four escaped unscratched. The gun flashes of this action were seen that night by the troops who had landed at Torokina that same morning.

♣ ASHORE ON BOUGAINVILLE, all was going well, and the beachhead was being expanded,

*It is interesting to note that Adm Omori was relieved of his command 15 November 1943, and spent the remainder of the war as commanding officer of the Naval Torpedo School in Japan.

tive sea and air isolation of the objective, as well as the rapid annihilation of the first echelon after it landed. Apparently the Japanese had planned to execute simultaneous attacks on both flanks. Neither of these attacks had the requisite force to carry through. Aggressive and speedy action on the part of the 3d Marine Division eliminated both threats by 10 November, and the expansion of the beachhead continued. In addition, succeeding echelons of the Corps were arriving according to schedule, and Allied strength at Torokina was growing rapidly. About this time Radio Tokyo announced that the allied forces invading Bougainville had been completely annihilated!

The only major attempt by the enemy to block the continuing progress of the beachhead in the remaining days of 1943, was made by a Japanese reinforced regiment from South Bougainville. From 18-26 November, it fell to the lot of the 3d Marine Division to drive the enemy from his positions blocking our advance to the high ridges that commanded the eastern sector of the beachhead. Following this engagement, known



Marine raiders return to their camp along lane that runs from Cape Torokina to Piva Village. This trail connects with Numa Numa Trail leading to Jap-held Kieta.

as the Battle of Piva Forks, the enemy retired to the east and was not heard from again in force until March 1944.

The construction of the fighter strip along the coastline, near Cape Torokina, had been undertaken early in November with many misgivings due to the dubious character of the ground in that vicinity. Late in November, it was ready for emergency use and on 10 December, 1943, it went into full commission. From that day on, it not only provided local fighter cover, but fighter cover to accompany the Rabaul bombing strikes, and offensive fighter sweeps against the enemy air.

✿ IT BECAME APPARENT as the operation progressed that, in addition to accomplishing the primary objective, several secondary objectives were being attained. First, Japanese air reaction to our operations was so violent that Allied air forces destroyed an estimated 558 Japanese planes in the first twenty days of November. Second, the balance of sea power in the immediate area was now definitely in our favor. Third, the landing force had avoided the heavily

defended areas of Bougainville, and left thousands of the enemy sitting impotently behind well prepared defenses to the south and east. Fourth, the troop elements of the I Marine Amphibious Corps were no longer green troops, and were receiving experience at a relatively light cost that would show up over the next two years at Guam, Iwo Jima, and Okinawa.

On 15 December 1943, the Commanding General, XIV Army Corps, relieved the Commanding General, I Marine Amphibious Corps, and assumed command of the Bougainville-Treasury operation. Adm Halsey sent the following dispatch to the late Gen Geiger: "On the occasion of your relinquishing command at Torokina, I desire to express my appreciation for your magnificent efforts in taking and holding a spot so vital to our efforts. You have literally succeeded in setting up, and opening for business, a shop in the Japs' front yard. The competition is making them most unhappy."

At this time the 37th Army Division and the 3d Marine Division, with some Corps troops attached, were holding the perimeter. By Christmas of 1943, the development of the Torokina

area into a first class offensive air base was proceeding apace. In the place of virgin jungle and swamp, in addition to the Torokina fighter field in operation, two bomber strips were rapidly nearing completion. Where there had been only narrow jungle trails, four lane roads were appearing. Even the ubiquitous movie screen was beginning to show up. Just before Christmas, elements of the Americal Division began relieving units of the 3d Marine Division in the eastern sector.

What had become of the estimated 25,000 to 45,000 soldiers of the Empire reputedly on Bougainville? Less an estimated 2,000, eliminated in November and December, they were evidently twiddling their thumbs in other parts of the island. The bulk of them were probably in the heavily defended Buin area to the south, waiting to be attacked. The New Zealand Brigade at Treasury must have been a source of concern to the enemy. Here a small force, perched on a small island, just out of convenient swatting range, was virtually containing a force many times its size.

What about the Allied forces inside the Torokina beachhead? Weren't they going to sally forth and march south to capture South Bougainville? No, they were most unobliging. Their mission of establishing a well-located, well-defended beachhead was nearing completion.

✱ IT WAS NOT until March 1944, that the Japanese made any major attempt to liquidate the Torokina beachhead. Evidently they finally realized that they would have to march to Torokina and meet the beachhead force on its own terms. During the period 8-24 March 1944, elements of the Japanese 6th and 17th Divisions, launched hard-driving large scale attacks against the 37th Division sector from the Laruma Valley-Numa Numa trail area. Even 90mm AA guns were placed on the perimeter to fire into the onrushing enemy. In spite of slight penetrations, the 37th Division rapidly reestablished its lines by counterattack. A measure of the severity of this fighting is the casualty list of 6,500 Japanese dead; and 1,492 killed, wounded, and missing in our 37th Division. We had imposed our will on the enemy and forced him to fight on our terms, on a battle ground of our own choosing. The Japanese never again attempted to dislodge the Torokina forces.

In November 1944, one year after the initial landing, the Australian II Corps relieved the

American Forces in Bougainville. The Australians then attempted to conquer and occupy the remainder of the island. The 3d Australian Division was sent to the north, and the 11th to the south. The Japs put up such stubborn resistance that by mid-summer of 1945, they still held the northern and southern ends of Bougainville and the east coast. In July 1945, the little Australian Division was still 18 miles from Buin, the hub of the southern Bougainville defenses. On 2 September 1945, LtGen Kanda, Imperial Japanese Army, surrendered Bougainville to the Australian II Corps at Buin, only 75 miles from Torokina and nearly two years after the initial Allied landings at Treasury Island and Empress Augusta Bay.

Let us return for a few more words from ViceAdm Omori, of the Rabaul Assault Force. In closing his interrogation at Tokyo in November 1945, he said "I do not think that this action [Cruiser-destroyer night battle 1-2 November 1943, Empress Augusta Bay] by itself was too important. However, when considered with the rest of the [Bougainville] campaign, it appeared to me to be the climax of your advance up the Solomon Islands. This advance was a cleverly conceived strategic plan which we were not prepared to counter in force. After this battle you were able to establish bases on Bougainville, which permitted you to make constant air assaults on Rabaul, which prevented us from providing support and air cover to our bases in New Guinea and New Britain.

"We had thought that your counteraction against the Empire might come from the south. We planned to use Rabaul as the main point of our New Guinea-Bismark-Solomons perimeter defense. By your constant advancement of air bases in the Solomons, you were able to neutralize Rabaul without actual assault. During 1943, we attempted to hold this line at all costs. It was very expensive. We lost most of our best pilots, many valuable ships, and many well trained military personnel that we were unable to replace."

The surrender of LtGen Kanda at Buin on 2 September, 1945, was the official end of the Japanese in the Solomons. Actually, the red sun of Nippon had set in the Solomons nearly two years before, when the all-service team of Army, Navy, Marine Corps, and New Zealand players had executed their "End Run in the Solomons," with a touchdown at Torokina. US MC



Devil Birds

OPERATION VICTORY

✿ THE LATEST WEAPON OF THE AIR ARM — escort carriers of its own—made headlines on June 30, 1945 when planes from two Marine CVEs were launched against enemy targets at Balikpapan, Borneo. For three days, Corsairs, Avengers and Hellcats from the *Block Island* and the *Gilbert Islands* supported amphibious operations by Australian troops against this oil center of the Netherlands, East Indies. Joining Army, Navy, British and Australian planes, the Marines on more than three hundred sorties, covered the landing phase and then concentrated on cutting up armored reinforcement convoys in the hills and destroying troop concentrations, supply depots and oil storage facilities.

Some six weeks prior to the Balikpapan landing, a long-time goal of Marine airmen was realized when planes from the CVE *Block Island* made the first combat sorties from a "Marine carrier." On this initial mission, May 10, F4Us and TBMs hit ground targets on Okinawa and airfields in the nearby Sakashima Group. Long

prior to the war and particularly when milk run assignments left their squadrons far in its backwash, Marine air generals campaigned for a small, all-Marine escort carrier force to support their own infantry in amphibious operations.

They based the repeated requests on the practical premise of sound tactical integration—that in

By Capt John DeChant

any amphibious campaign, the Marine air-ground team was inadequate and incomplete unless "marines were over marines" from start to finish. Numerous landings were planned throughout the war for the Marine divisions on the island stepping-stones to Tokyo. Marine airmen pointed out that their own bayonet-type of infantry support would be even more vital to the Marine infantry during the crucial assault phases of landings than in the latter stages when they covered as land-based planes.

After a campaign as zealous as Lt Cunningham had waged in 1912, it was announced October 10, 1944 that Marine-carrier air groups were in training. As initially planned, the Ma-

Part X: The gull winged Corsairs roar in to occupy air fields in the Japanese homeland and write *finis* to the Marine Air War in the Pacific. The last few operations were to tidy things up; like putting ribbon around a package which is already wrapped

rine CVE program called for the activation of four Marine Air Support Groups (MASG) with each group including the air complement aboard four CVEs. The air complement of a single CVE was labeled a Marine Carrier Group (MCVG) and comprised a fighter squadron and a torpedo-bomber squadron. A Marine ground crew or carrier air service detachment (MarCASD) was to handle both squadrons aboard a CVE. Early plans allotted 18 fighter planes (F4Us and F6Fs) and 12 torpedo bombers (TBMs). However, with the addition of night-fighter planes and others for photographic work, the number and types of aircraft varied slightly with each carrier, but provided a well-rounded striking force.

Col Albert D. Cooley, a veteran of the Solomons, was named commanding officer of the initial carrier unit, Marine Air Support Group 48 (MASG 48), and its higher echelon, Marine Carrier Groups, AirFMFPac. Based at MCAS, Santa Barbara, MASG 48 began a rigid and extensive training program based on the Navy's carrier-training system for all its personnel, many of whom were veterans of the South and Central Pacific fighting.

The Navy assigned four CVEs of the *Commencement Bay* type (105-class) to MASG 48—the *Block Island*, *Gilbert Islands*, *Cape Gloucester* and the *Vella Gulf*. These were delivered at intervals to the Marines, complete with naval crews, for use in training and shakedown cruises before leaving for the combat areas.

✿ THE FIRST all-Marine carrier air group, commanded by LtCol John F. Dobbin, eight-plane Guadalcanal ace, arrived at Ulithi in April, 1945 aboard the *Block Island*. The first air strike for its squadrons, VMF 511 and VMTB 233, was the infantry support mission May 10 which plowed up Japanese mortar concentrations near the front lines at Okinawa. For 43 consecutive days, the *Block Island* squadrons operated deep in Japanese home waters as a part of RearAdm C. T. Durgin's Escort Carrier Force. The rocket-firing Marine fighter-bombers and TBMs divided their missions between air support strikes at Okinawa and round-the-clock neutralization raids

against enemy airfields in the Sakashima Gunto. The latter were potential staging points for enemy air forces moving on Okinawa from Formosa and China. Sustained operations by the Marine planes were carried out against four major Japanese air bases in the chain at Miyako Jima and Ishigaki Jima. Though they had no contact with the Kamikazes, the Marine squadrons suffered considerable damage from AA fire on their low-level raids. When the *Block Island* returned to Leyte for supplies June 17, it had lost four fighter pilots, two TBM pilots, and four aircrewmembers to Japanese flak during the 550 target sorties of its total of 1100 combat flights.

June 1, the *Gilbert Islands* with MCVG 2 aboard, joined the *Block Island* and the Navy escort carriers in their continuing operations in the Okinawa area. Commanded by LtCol William Campbell, the squadrons of Air Group Two—VMF 512 and VMTB 143—flew direct infantry support strikes at Okinawa and bombed, rocketed and strafed airfields and installations at Ishigaki, Miyako, Erabu, Ikema and Irimote in the Sakashimas. On June 16, the carrier joined the CVE raid on Amami O Gunto and returned to Leyte.*

✿ WHILE THE *Block Island* and the *Gilbert Islands* were in action off Borneo, the third Marine CVE put out from Leyte on July 1 for the China Coast. Aboard the carrier, the *Cape Gloucester*, was MCVG-4, commanded by LtCol Donald K. Yost, another South Pacific veteran. Its squadrons, VMF 351 and VMTB 132, provided air cover for a task force on a mine-sweeping operation in the southern sector of the East China Sea and participated in shipping strikes against the Saddle and Parker Island groups at the mouth of Hangchow Bay. Three enemy planes encountered by the Marines on their operations were shot down. At the end of July, the *Cape Gloucester* dropped anchor at Buckner Bay, Okinawa, from which it later operated against Nansei Shoto targets.

The fourth and final member of the First Marine Carrier Division, the *Vella Gulf*, arrived at Saipan in mid-July to add its brief contribution

*In the period, *Gilbert Islands*' squadrons flew nearly 750 missions and downed one Jap bomber.

to the CVE story. On July 24 and 26, its squadrons VMF 513 and VMTB 234, made a series of milk-run raids on the by-passed islands of Pagan and Rota in the Marianas.

These brief but diversified combat baptisms for the first Marine carriers were eminently successful and well praised by naval airmen and the infantry. The initial missions were intended as a prelude to joint action by one and possibly two divisions of the Marine CVEs in Operation Olympic in the fall of 1945. During this projected invasion of southern Kyushu, the Marine CVEs were tentatively slated to support the Marine infantry divisions in the operation.*

Though the combat actions of the Marine escort carriers in the final weeks of war were not of spectacular note, they were adequate evidence that the Marine Corps now possessed the most versatile and complete triphibious striking force of its kind in American military history.

Target Japan

✿ WITH THE REDUCTION of Okinawa by the end of June, 1945, the Allied Pacific campaign

*En route to the Pacific in the final weeks of war were two CVEs of MASG 51, the *Salerno Bay* and the *Puget Sound*. The remaining ten Marine CVEs, their Air Groups 42 and 46, and squadrons, were still in the States in various stages of preparation when the war ended.

Victorious wings over Honshu include the Marines' rugged Corsair, the Army's Lightning and Mustang.



concentrated on the Japanese home islands with accelerated B-29 raids from the Marianas, air attacks and raids by the Third Fleet and intensified sorties by Okinawa-based planes.

Land-based Marine Corsairs of the TAF made their first fighter sweep over Japan June 10 in a 24-plane raid led by Maj George Axtell. The F4U pilots roamed over nine air bases on southern Kyushu hoping to draw up enemy interceptors. In spite of several low-altitude strafing missions, Japanese opposition did not materialize in quantity and only one plane was shot down. Radio Tokyo reported that the Marines destroyed 17 planes on the ground during the mission.

The Corsairs continued to add their firepower to the now routine Kyushu missions made by Army P-51s and B-24s of MajGen Louis E. Woods' Okinawa air force during the balance of June and July. Most of the southern Japan sorties, however, were flown by the longer-ranged Army Mustang fighters while the Marine Corsairs and Avengers concentrated on targets in the Nansei Shoto.

When TAF, Tenth Army became TAF, Ryukyus, on July 1, Gen Woods commanded the largest combat air force in the history of Marine Aviation. It consisted of four fighter-bomber groups of the Second Wing, three fighter-bomber groups of the 301st AAF fighter wing and four medium and heavy bombardment groups of the AAF's Seventh Bomber Command. Woods' tenure over this sizable force was short-lived. TAF, Ryukyus, was disbanded July 14. Its Marine groups reverted to control of the Second Wing and the Army units were absorbed by the Far Eastern Air Force.*

*On July 15, in the South Pacific, ComAirNorSols was disbanded and replaced by a Royal New Zealand Air Force command known as the New Zealand Air Task Force. MAG 61 and its squadrons remained as part of the new organization.



These Vought Corsair fighters, veterans of Okinawa, are shown warming up before taking off on a reconnaissance flight from the Marine Air Base at Yokusuka, Japan.

✿ WITH THE SECOND WING then responsible for the air defense of the Okinawa area, its routine operations were broadened to include large-scale fighter-bomber raids and Dumbo and photo-escort missions against Kyushu targets; milk run strikes against numerous Nansei Shoto land installations; China Coast patrols and routine elimination of Japanese shipping and barge traffic wherever it could be found. This extensive and successful whittling-down process against enemy remnants continued unabated except for foul weather.

During the closing weeks of July and into early August, the Second Wing air groups, now based at Yontan, Chimu, Awase and Kadena met little or no Japanese air opposition during the daylight hours. Only at night were the Marines able to contact and destroy a meager number of lone raiders or suicide planes.

As the Ryukus area passed into the strangulation phase, the Second Wing announced its contributions to the lop-sided air battle for Okinawa. In the first 100 days of the campaign, its pilots shot down 500 enemy planes and probably destroyed 22 more. Seven enemy ships were sunk or destroyed and 28 others damaged. Thirty-six small craft were destroyed and 54 damaged. A total of 37,126 sorties were flown. Nearly 1,600 tons of bombs and 11,480 five-inch rockets had been expended along with more than four and one-half million rounds of machine gun ammunition.

These records had been achieved with a loss of only 11 planes in air combat—four to enemy pilots and seven to AA fire. One hundred and forty-eight other aircraft were lost in combat flight. Thirty-two pilots were killed by enemy action, with 39 listed as missing in action.

Meanwhile, strategic bombing attacks and task force raids were stepped up against vital Japanese homeland targets to maintain pressure during the period of Allied preparation for the invasion of Kyushu in November. The startling lack of enemy air opposition during this literal mauling of their home islands was due to a policy of extreme conservation by the enemy. The entire remaining Japanese air strength, some 5,400 planes of all types, was ordered saved for an all-out suicide defense against the expected Allied invasion forces. All planes were elaborately dispersed away from airfields and in underground revetments which were well camouflaged.

In the midst of elaborate invasion preparations, the long-tottering Japanese Empire and its war machine were rocked by the atomic bomb drops at Hiroshima and Nagasaki and the last-minute entry of Russia into the Pacific war. Then the end came abruptly. On August 14, after several days of wild rumors, the Japanese accepted the Allied surrender terms. Stunned and unbelieving, the Air Arm joined its fellow services in celebrating and praying that the long and bitter fight was over and done.



A flight crew makes a 60 hour check on a Curtiss Commando in the hangar of Transport Squadron 952, part of Marine Air Group 31, based after the war's end at Yokosuka.

White Flags and the Aftermath

IMMEDIATELY after the formal Japanese surrender aboard the battleship *Missouri* in Tokyo Bay September 2, the Marine Air Arm completed its cycle of destiny in World War II. BrigGen Lawson H. M. Sanderson, commanding the Fourth Air Wing, accepted the surrender of the enemy garrison at Wake Island on September 4. Joining in the flag-raising ceremonies following the surrender was Col Walter L. J. Bayler, USMC, who had been the last man off Wake when it was still in American hands. Appropriately, Bayler was given the honor of being the first man ashore from the American surrender party.

With the formal surrender of the Japanese government, Marine Aviation coped with two major problems—occupation and demobilization. The Air Arm joined the Allied forces which moved into all centers of former enemy-held territory to disarm the Japanese troops, search out and repatriate surviving Allied prisoners of war and establish garrison control of the conquered possessions.

Squadrons of the Second Wing supported the V Amphibious Corps in carrying out its occupation mission in Japan proper. By September 7,

VMF 441 was operating from the airfield at Yokosuka naval base below Tokyo. The Second Wing retained its headquarters at Okinawa and two groups there and sent MAG 31 to Yokosuka and other units to Omura on Kyushu and to Nagasaki.

The largest occupation mission of the Air Arm was that of the First Wing in China in support of the troops of the III Amphibious Corps. Wing headquarters was established at Tientsin by MajGen Larkin and taken over in late October by MajGen Woods, who had turned over the Second Wing to BrigGen Schilt. The First Wing's MAGs 12 and 24 were based at Peking and MAGs 25 and 32 at Tsingtao.*

On December 7, 1941 there had been only four Marine squadrons overseas. At the war's end, the command of Aircraft, Fleet Marine Force, Pacific was composed of four air wings; 21 air groups, including two air support units; 59 tactical squadrons, of which 12 were aboard carriers; a total of 19 transport, photographic, observation and utility squadrons; nine air-warning units and other miscellaneous groups

*The Fourth Air Wing moved its headquarters from the Marshalls to Guam for a brief period of duty and was then deactivated as had been the Third Wing at Ewa, Oahu.

Exhaust Gases Reduce Fire Hazard

❁ A NEW SYSTEM FOR REDUCING aircraft fire hazards by blanketing vacant spaces, inside and around the fuel tanks with low oxygen-content gases from the engine's exhaust has been successfully installed in two Navy planes.

The system, which involves the cooling of inactive exhaust gases by a heat exchange before they are led through a small "bleed" line into the gasoline tank, was developed for the Bureau of Aeronautics by the Curtiss-Wright corporation research department and Cornell Laboratories, Cornell University.

Although atmosphere normally contains 19 per cent oxygen, a reduction of only five per cent in oxygen content is usually sufficient to suppress combustion. The new exhaust gas system maintains the oxygen level in air immediately adjoining an aircraft's fuel supply at approximately 10 per cent, or well below the safety limit.

The system eliminates extra weight in the form of carbon dioxide bottles or inactive gas generators usually used to "purge" partially filled gasoline tanks. It can be used in both combat and non-combatant aircraft. Simplicity and efficiency of operation are features of the new system. When gasoline is used from the plane's tank, the exhaust gases enter and the remaining fuel is blanketed with low oxygen content vapor, incapable of supporting combustion. Other lines maintain a constant flow of vapor into the wing sections surrounding the fuel cells, lessening the fire hazard from possible leakage.

Before exhaust gases enter the fuel tanks, they are cooled from 900-120 degrees to approximately 70 degrees by a heat exchange. From the heat exchange they go to a pressure relief valve which vents the system when critical internal pressures are built up, such as in a long climb. Farther on, a check valve prevents back-flow of gases, and a vacuum breaker near the tank allows outside air to enter the system in case of failure.

Original research on this new fire prevention system began in 1943 when the Curtiss-Wright research department was invited by the Navy to study the problem, along with the National Defense Research Council and the British Government. Several methods were evaluated, but the use of engine exhaust gases was decided to be the most efficient.

At present, the new unit has been tested only on aircraft without turbo superchargers. With a turbo supercharger the unit could be installed between the engine and the turbine, and could provide an auxiliary fuel pressurization system.

Cornell Laboratories, successors to the Curtiss-Wright research department, now is engaged in testing further the system in various installations. At present, the fire prevention system has been successfully installed in an R5C Commando and a PB4Y-2 Privateer. The Privateer was recently demonstrated to Bureau of Aeronautics personnel at the National Airport, Washington, D. C.

—Navy Release

for an aggregate of 42,000 officers and men in the Pacific.*

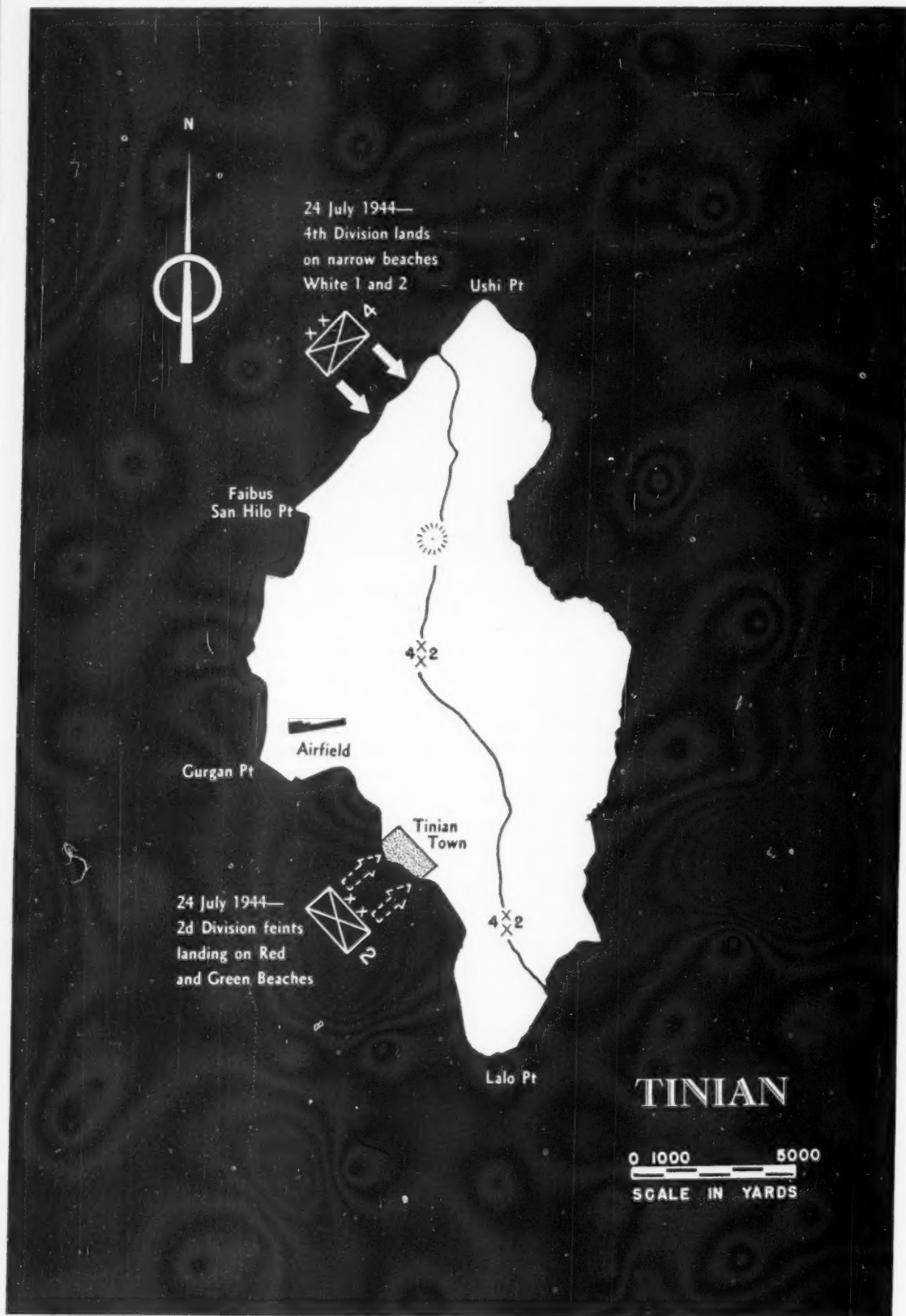
Due to extremely rapid demobilization caused by the hue and cry at home, the Pacific personnel figure was reduced by one-half in a matter of several months. Throughout 1946, the Air Arm continued to reduce the number of units and personnel to meet the regular peacetime quotas. In the meantime, the Air Arm was

building an aggressive air reserve program for future needs, whatever they might be, in the Marine tradition.

As the vanguard air arm of a U. S. Marine Corps ready for another era of nominal peace, it predicated its future on its past. As for the future security of the country it was ready to guard, Marine Aviation could only hope that America would never forget the most urgent lesson of the global war—the advent of air power as the greatest striking force the world has ever known.

USMC

*Ninety-three per cent of Marine Aviation's total personnel saw duty overseas at least once during the war.



The Marines in the Pacific War

Chapter 17

TINIAN; PERFECTION

TINIAN IS SHAPED LIKE A FLAT FOOTBALL, 21,000 yards from tip to tip. It is a high plateau, rising sheer from the sea with a 500 foot hill in the south and another near the northern tip, Mt Lasso. The island is extensively planted to sugar cane; the inhabitants live on rice and pickled beef. Northeast of Mt Lasso lies the airfield and another had been begun, but only carried so far as a little grading, half way down the western

side. We had to have the place for two reasons—Saipan could be seen from it so that while the enemy held it they could look across and report everything that went on at what was to be one of our most important bases; and the island itself offered sites for no less than six 8,500-foot runways, which would be needed if B-29s were to be used against Japan in the anticipated quantities.

The commander of the island was Col Ogata of the 50th Infantry Regiment from the 29th Division. He had that regiment, which had been one of the submarine sufferers but was now built up to strength by reinforcements from other units; about a battalion of the 135th Regiment; the 56th Naval Defense Force and some scattering troops, making up a total of 4,700 Army and 4,110 Navy personnel. The major artillery consisted of a battery of three fine British 6-inch; six 140mms; ten 120mm dual purpose; five 76.2mm dual purpose (this was a lot of experimental guns); and 13 75s. There were a variety of 47 and 25mm cannon.

A great many of the small guns, the British 6-inch, two of the 75s and four of the 120s were mounted around Tinian Town, down near the southern tip of the island where the excellent

beaches made it most likely the Americans would attempt to land.

There is another series of beaches in Asiga Bay, near the northeast tip and south of the airfield. Here Col Ogata had mounted seven of his 140s to enfilade the beach areas, six 75s and three of the 76.2s to fire into the beaches from the rear. Many of the smaller guns were disposed in a system of pill-boxes just behind the

By Fletcher Pratt

water's edge on the system that worked so well at Tarawa. Most of the remaining guns—three 140s, three 120s, two 76.2s, two 75s—were on the flanks of the small narrow beaches in the Hagoi area on the northwest coast, where there is a steep shelf and an abrupt rise toward the northern projection of Mt Lasso. Three of the 75s were on a spur of this mountain, mounted so they could cover either Hagoi or Asiga Beach. All the rest of the island shoots steeply up from the water into terraces and there is great depth offshore so that boats could not be properly beached.

All the guns had long since been dug back deep into the cliff faces and camouflaged, after which rapid-growing tropical vines had been trained over, which effectively hid them from view. They were so deep in as to be immune to air attack. The 140s on the northern point, the 120s covering Hagoi and the whole battery of 75s near the airfield had opened fire on *Tennessee* and the cruisers when they were bombarding Saipan and every single one of them had been wrecked by 14-inch shell. On 25 June it became clear that Saipan was going and the Combined Fleet would be unable to come to the relief of the Mariana Gunto, so Col Ogata issued his final battle plan.

Part XV: Faced with the problem of an almost complete lack of negotiable beaches, the 4th Marine Division nevertheless pulled off one of the smoothest landings of the war. On narrow Hagoi beaches the assault regiments landed in column of battalions



Keeping their rifles dry, this wave of Marine assault troops disembarks from landing craft and wades through waist-deep surf across the reef to Hagoi's narrow beaches.

He divided his forces into three sector commands. The Southern Sector Force consisted of a battalion of the 50th, with most of the naval forces and scattering formations. It covered an area comprising about half the island on a line running across it just south of Asiga Bay; that is, this force was to defend the most likely landing spot at Tinian Town. The Northern Sector Force was to defend Asiga Bay; it had the 2d Battalion, 50th, reinforced by a couple of platoons from other formations and a good many naval artillerists. The Western Sector Force was to protect the inferior beaches at Hagoi and consisted of a single company of infantry with an antitank gun squad. The remaining troops were in reserve south of Mt Lasso, ready to turn to Asiga or Tinian Town as called for. The Colonel's orders were to "counterattack to the water and annihilate the enemy but be prepared to shift two-thirds of the force elsewhere."

II

THE ORIGINAL PLAN for Tinian had been drawn up in April, along with the other plans for the Marianas, by Holland Smith's Corps Staff and submitted to Holland Smith as head of troops, an in-one-pocket-and-out-the-other arrangement. It was changed during early July, when it became time to descend from the general to the specific. Marc Mitscher in the meanwhile had gone back to the Marshalls with a good many of the fast carriers to investigate why the new SB2C dive-bombers had such frequent deck crashes and Jap planes had almost ceased to come from the north. Tinian was to be an

amphibian campaign with no naval element except that furnished by the occasional submarines with which the enemy still sought to maintain a kind of communication to his doomed sea fortresses. The new command plan elevated MajGen Harry Schmidt from the 4th Division to the V Amphib Corps; Clifton Cates, who had done so very well on Guadalcanal, now a major general, was brought out to head Schmidt's old division on 12 July.

On that date the V Corps Reconnaissance Battalion had already twice been in at night along the two practicable beaches of northern Tinian, Asiga and Hagoi, getting out without casualties and with sketches as well as samples of the vegetation for study. The beaches down at Tinian Town were the best, of course, but Gen Smith never even considered them; persistent photos from air and sea showed them to be heavily defended by fortifications which could be effectively turned by an overland campaign from the north. The Reconnaissance Battalion's report showed Asiga to be nearly as well defended and it had the additional disadvantage of being dominated by Mt Lasso, which would mean a steep climb out of the beachhead against fire after landing. The Hagoi beaches were excessively narrow and with a bad shelf, but Gen Smith was a firm believer in the Napoleonic principle that no geographical opposition is half as serious as that which an active enemy can offer. He decided on Hagoi; and he had to argue with Adm Turner to get it approved.

This decision was partly based on captured Jap documents and interrogations, a major named Yoshida from Gen Saito's staff being

particularly useful. There had been a little communication between Tinian and Saipan during the fighting on the latter island and we had a good count on the Jap forces (the preliminary estimate said 8,350) as well as a copy of Col Ogata's battle plan. Such information is not as reliable as that from observation—the enemy might change—but when confirmed by observation, has extra weight.

The 4th Division would make the assault, supported by a mixed artillery component, partly from the 10th Marines, partly from its own 14th. They would go in from LSTs in a shore to shore movement from Saipan, and it was expected to get all three infantry regiments and their guns onto the beach the first day, then drive directly forward to seize Mt Lasso. The wastage of war had brought this division down to 65 per cent of its infantry complement, but neither Gen Schmidt nor Gen Cates believed the Japs could assemble enough troops for serious opposition in time to prevent a rapid extension of the beachhead, given that the enemy would

Meanwhile the 2d Marine Division (now up to 85 per cent of its nominal strength, having received replacements) was put afloat in regular transports. Convoyed by *Colorado*, *Cleveland* and the destroyers *Remey*, *Wadleigh*, *Norman Scott* and *Monssen*, this division was to appear off Tinian Town and make a bluff at forcing a landing there and being beaten off. As soon as the Hagoi beachhead was secure the transports and the 2d would move up thither, landing the division across the same beaches that had served the assault wave. The 2d was to operate on the north, the left flank, sweeping across the airfield to the east coast of the island, then down on the Asiga defenses from their flank while the 4th Division took them in the rear. Both divisions would then move abreast toward the southern island. Air support for the operation would come from five escort carriers—*Midway*, *Nehenta Bay*, *Gambier Bay*, *Kitkun Bay*, *White Plains*—three combat carriers (*Essex*, *Langley*, *Princeton*), three army fighter squadrons and one army bomber squadron from Saipan, and a

"That night attack was in fact the effective conclusion of the campaign . . . the gunners of the 10th and 14th Marines had supported the troops in the line not only with call fires but also with shoots in the rear . . . landing right on Col Ogata's CP . . ."

have trouble making daylight movements in the face of our bombing and naval gunnery.

The date, called J day, was set for 24 July. As early as the 15th all the XXIV Corps Artillery and all the V Amphib Corps guns were assembled in southern Saipan to fire on Tinian. The heavier pieces could cover nearly the whole island. As the assault waves went in they would be covered by the battleships *Tennessee* and *California* and the cruiser *Louisville*, whose principal mission was to fire counterbattery against any Jap guns that might open up. There were destroyers in the plan too, and a scheme of fire had been worked out so that one ship would be specifically on call to each battalion of the two regiments in the first wave. Thus *Conway* would support the 1st Battalion, 24th, *Tennessee* the 2d Battalion, *Eaton* the 3d; of the 25th *Pringle* would support the 1st Battalion, *Waller* the 2d, *California* the 3d. *Birmingham* would take care of the western slope of Mt Lasso; *Montpelier* and *New Orleans* the eastern slope and the Asiga Bay positions; *Indianapolis* would cover anything that showed at the point south of Hagoi beaches, Point Fabius San Hilo.

Marine night fighter squadron. The 27th Division was on four hours notice to land in support; Harry Hill was the Amphib Force commander.

H Hour of J day was 0745. Before that time the whole northern end of Tinian had been plastered by the fire of no less than 156 pieces from Corps Artillery in addition to the ships. They eliminated all the guns near the airfield and practically all those on the western slope of Lasso. The battleships had been working on the pieces Col Ogata had dug into the cliff near Fabius San Hilo Point, and got rid of the 140s by firing armor-piercers into the cliff face above them, which brought down the whole structure in an avalanche of rubble. A Marine observer (his name was Boyneston) came aboard *Waller* to get acquainted and to direct fire; the men of the destroyer, who had themselves been through all the hard fighting and the wild nights up the Slot of the Solomons, stared in something like awe at his haggard, hungry face and worn uniform. "When we saw him we knew who was fighting the war." Aboard *Pringle* they had some Jap aviator prisoners who had been picked



The Marines crowded the Japanese into the lower tip of the island. Here a half-track covers an infantry approach into a wooded area suspected of concealing Nips.

out of the water; the skipper was so impressed by the hard-bitten appearance of the marines who wanted to guard them that he said no, he'd turn them over to a Navy shore patrol.

III

✿ AT HAGOI everything ticked off like close-order drill. The beaches were so narrow that only a single battalion could be landed on any one at a time, but this caused no trouble at all and the succeeding battalions poured in rapidly. Some of the amphtracs with the 24th were carried by tidal currents to land on rocks a little north of the true position, but this turned out to be no drawback and both assault regiments were already 500 yards inland by 1000, with the 23d coming ashore. The main opposition was from mines; two amphtracs were blown up and Marine engineers had to dig something like 20 mines out of the beaches where the Japs had cleverly planted them between low and high water lines. Col Merton J. Batchelder's 25th reported a few pillboxes on its right; but not much was coming out of them, casualties were light.

At about 1100 aviation spotted four tanks

pushing rapidly along the main road west of Mt Lasso. Corps Artillery from Saipan put them under fire, blew one up with a direct hit and sent the others back, one with smoke streaming from its vitals. By 1335 two battalions of artillery were in position to fire; half an hour later the 23d Regiment was all on the beach on the right flank working toward Fabius San Hilo. The 25th had the center now, the 24th the left flank toward the airfield and all made such rapid progress that by night they had a beachhead 4,000 yards wide, 2,000 yards deep. The artillery was all ashore and one battalion from the 2d Division.

The weather had been fine, with almost a complete absence of swells, but that condition could not be expected to endure, and preparations had been made to meet a charge. Two big ponton causeway piers, built on Saipan, were under tow for the beachhead and reached it before morning. The casualties were 15 killed, (mainly in the mined amphtracs) 225 wounded, the lightest for any landing yet. Surprise had paid off.

Surprise paid off down at Tinian Town also, but the Japs gained the surprise, where *Colorado*



To get this 75mm pack howitzer into firing position, it had to be carried up a cliff by hand loads and lashed into place. It is firing against Jap-held caves.

and her attendant destroyers supported the fake landing. The Higgins boats formed up as though for attack and rushed for the beach, at which the Jap antiaircraft guns all blazed out. Just as the landing craft reached a position where they effectively blocked any attempt the old battleship might make to maneuver (she had a reef behind her and could not turn) Col Ogata's English 6-inch let her have it. They were shooting over open sights and could not miss. In ten minutes *Colorado* had 150 casualties, a fuel tank penetrated and two 5-inch mounts knocked out, her upper works cut to pieces. *Norman Scott* beside her got seven hits and was a wreck with 22 killed, 47 wounded. The battleship had to take it like a sitting duck; but battleships are built to take it; her 16-inch imperturbably fired back right down the throats of the Japanese and aided by *Cleveland*, silenced the brief flurry and destroyed all the Jap guns.

Col Ogata also tried to get surprise by bringing concealed forces into play against the beachhead which had established itself in the north. A pair of his 75s in casemate mounts near Fabius San Hilo had survived undetected and his communications, mainly by field radio, were

very much better than Japanese usually had after the gunfire haircut. He ordered a double counterattack to drive in the American lines, his naval troops attacking westward across the north end of the island, his army men straight north up the island's main road past the outer spurs of Mt Lasso, with the support of his single company of tanks. The difficulty was getting troops into position for this operation. All afternoon, after the *Colorado* attack had been "beaten off" he kept trying to move men up from the Southern Sector Force in small parties. The American airplanes spotted them every time and brought down so much fire that the formations had to disperse. It was hard to keep organization or tactical control, the soldiers tended to duck into cover and stay there. It was as bad with the tanks; two were disabled by American gunfire and most of the rest could not move. When the hour had reached 0200, which Ogata had concerted with the naval men as that of the attack, only six tanks, the battalion of the 135th from the reserve area and about a company of the 50th were available for the main drive.

But the Colonel was a Japanese officer; that is, he permitted no difficulties to interfere with

putting into effect a plan already drawn. At 0300 he tired of waiting for more troops, and attacked, his surprise guns of Fabius San Hilo furnishing covering fire.

... As soon as the tropical night shut down under a sky that had grown more and more overcast through the day, Japanese activity began to be noticed both by the 24th on the left flank and the 23rd on the right. Gen Cates, who was still controlling from an LST out in the water (the narrow beaches were too congested to put anything more ashore at once) ordered beach patrols set up; outposts were established 30 yards in front of the lines.

At 0200 the show started on the 24th's front—the usual Jap hullabaloo, men running forward in small groups, screaming and throwing grenades. At the same time artillery fire began to fall on the beachhead from some unidentifiable point. It was a wild night, but the 24th was a little more closely formed on a little better ground than the other two regiments. The Japs never got an entrance into its lines.

At 0300 a second attack developed against the joint of the 23rd and 25th Regiments, led by tanks with Japs yelling and beating rifle butts on their tops. Just where the blow struck there was a little lake surrounded by soft ground from which rise quite a few draws to the outer slopes of Lasso, so that it was difficult to keep liaison along the front. In spite of illuminating star shells quickly put up by the ships several hundred of the Japs got through to the rear areas and attacked the artillery positions. But that was the limit. The Jap tanks had the usual luck against our bazookas, that is, none at all, five of the six being knocked out at once. 37mm canister and rifles had taken so heavy a toll of the attackers that they were reduced to little groups who merely sought cover and as soon as morning came the mopup squads got busy and cleaned them all out. By 0930 on the morning of 25 July the division was ready to go forward again and had found 1,241 Jap bodies along its lines. The enemy artillery fire was never really serious; something seemed to be wrong with the traverse of their guns and all the shells fell into the narrowest of areas.

IV

✱ THAT NIGHT ATTACK was in fact the effective conclusion of the campaign, as the night attack on Guam, just 24 hours later, effectively concluded the campaign on that island. During the night the gunners of the 10th and 14th Ma-

rines had supported the troops in line not only with call fires but also with shoots in the rear of the enemy lines at points where activity had been noted by daylight. One of these shoots hit the jackpot, landing right on Col Ogata's CP and killing him with his whole staff.

No one in the Jap lines knew who was to take over or that anyone was to take over since headquarters had no survivors. Some units, from a squad to a platoon in size, simply dug in and stayed where they were, waiting for orders that never came. Some from a company to a battalion, obeyed that vague sentence in the battle plan which bade them shift two-thirds of their forces elsewhere. Thus on the afternoon of the 25th, two companies of the 50th Regiment who had tried and failed to reach the front for Ogata's counterattack, began to march back south again. They were spotted by advance patrols from the 25th Regiment and were cut to pieces by a sudden artillery concentration.

On our side the morning attack had been set for 0900 but it had been delayed an hour to finish the mopup operation. Nothing was lost; when the drive started it at once made a big heave forward all round the perimeter, carrying the 24th Regiment halfway across the airfield and the 25th well up the slope of Lasso. Resistance was nowhere more than "moderate," which meant that machine gun bullets frequently ripped across open spaces, there were occasional bursts from mortars and constant sniping, so that men had to advance cautiously, using cover. But there was no appearance of really well organized resistance and of counterstrokes none.

The whole 2d Division landed that day and CP of the 4th. That night the 24th Regiment was picked out of line and placed in reserve while the 2d Division took over its positions. The following morning both divisions attacked, the 2d successfully going through with its right wheel around the foot of Mt Lasso while the 4th took the summits. One wing of the latter pushed forward to capture the positions from which the 75s had fired during the Japanese night attack and it was revealed that the reason these guns failed to accomplish more was because they had been so deeply dug in that they had an arc of fire of only about 15 degrees. From this point on the daily journal was one of 3-4,000 yard advances till 1 August, when the Marines of the two divisions could look from the southern shore and Gen Schmidt could announce in the classic phrase that "all organized resistance has ceased."



On Tinian there were the usual groups of die-hard Japanese who had to be rooted out of caves and ravines. Here a flamethrower cleans out a well-concealed dugout.

The island cost us 1,727 casualties, of whom 290 were killed. It cost the Japs everything they had and it was the easiest conquest the Marines had made to date. Of course part of this was due to the overwhelming force developed—two full divisions and the fire power of a fleet against the unfortunate Col Ogata's scrap and patch command. But another and very big reason for the light loss and heavy gain was full information as to the enemy dispositions and smart tactics in making use of this information. At Tarawa, Kwajalein, Eniwetok, Parry, nearly 50 per cent of the casualties had come at the beaches where the Japs elected to make their main defense; at Saipan and Guam the beach casualties were the heaviest of all. At Tinian the relative figures were reversed. Gen Schmidt's men landed where there were no beach defenses and thus turned the campaign into a pushover.

Tinian was also remarkable for another feature—the tryout of the Napalm fire bombs. Only a few of them were received in time for use there and they were employed just behind the beach areas, where they proved so effective

in burning out vegetation and camouflage that much wider employment was immediately recommended. They were referred to by correspondents as a new and very terrible secret weapon, no hint of whose nature was allowed to escape by the censors. As a result everyone back in the States began to imagine that the problems of amphibious warfare had been solved and the rest would come easy.

As a matter of fact, most of the problems had been solved as against any system of defense encountered to date. Covering fire, air support, cooperation, beach parties, landing craft—all the techniques were essentially worked out by time the Marianas fell. It was not quite apparent at the time, nor even later, when different methods of resistance began to be encountered; but 10 August 1944, when Guam was declared secure, marks a historic date—the date when the U.S. Marines and the Navy carrying it to the beaches arrived at the answer to a question that had perplexed all history and had not infrequently been pronounced as beyond solution. The question was that of how to land on a hostile and defended beach.

to be continued

Battle Replacements

✿ WHEN THE FIGHTING DURING AND AFTER THE assault on the beach has been bitter, and the ranks of the veterans are growing thin, there soon appears a point at which fresh effort must be produced by the introduction of fresh troops to replace those who have fallen. The solution to this problem of casualties and lost momentum seems simple; just replace those casualties with men who have the same skills. Our classification system allows us to specify these skills and it but remains for G-1 to place a requisition for the new men.

If war were fought entirely by machines, such a method would be ideal. However, although the needles of the classification expert unerringly slide into the proper holes and select so many truck drivers and so many riflemen, this method does not insure that these men will fit into the team of which they must become a part. It does not mean that they know, or can work with, the leaders under whom they must serve. Nor does it provide men with the superior training and discipline which the veterans of a fine fighting unit invariably possess. It becomes evident then that there are intangibles involved in this problem of replacement in battle which complicate the solution. This study will attempt to evaluate this problem, but only from the viewpoint of the receiving end of the process.

Let us look at a solution used within one Marine division during the last war. Replacements were received in blocks known as replacement drafts during the period in which the division was training for its next operation. These replacement drafts were assigned a two-fold task; first they were required to function as the labor element of the shore party, and secondly they were to be used to replace battle casualties.

In order to function in these two roles, the replacement drafts had to receive two kinds of training, shore party and infantry. Fortunately

they joined the division some forty-five days prior to the operation so that time was available in which to give this required training. Upon joining, the drafts were assigned to the pioneer battalion of the division and comprehensive training programs and schedules were prepared.

All training, both infantry and shore party, was to be given under the supervision of the pioneer

battalion. This program was carried out.

✿ THE DIVISION went on campaign. Since it became a costly struggle, the day soon arrived when it became imperative that new, fresh infantrymen carry on the assault. Replacements were released from their shore party duties and reported through regiments to front line battalions. In the front line battalion of which I have personal knowledge, the assigned men were received by the S-1 well in rear of the front lines, were then catalogued, welcomed to the unit, and assigned by name to certain companies. With the first such group of men it was possible to wait until the battalion went into reserve to put these men into their squads. Under this condition a small amount of training was given them in the tactics they must soon employ, and they developed some team spirit and came to know their squad leader at least. As casualties grew, however, it became impossible to wait for a period in reserve to integrate the new men. They had to be infiltrated into the lines under fire; as a consequence they did not know the men or leaders with whom they had to fight, they lost confidence because they felt alone and because they knew they were not trained as only veterans are trained in being combat wise and "hard to kill." It was found that the introduction of replacements in this manner did not lead to increased momentum in the attack but had a vicious effect on the cycle of casualties. The lack of confidence mentioned above required

By LtCol Robert E. Cushman

Keeping engaged units up to effective combat strength was one of the open secrets of American military success. The Marine replacement system in World War II can be improved upon by training the replacements with the troops they will replace

that in the attack these men be led and encouraged at great personal risk by the few veteran noncommissioned officers remaining. This led to increased casualties among these leaders, resulting in more casualties among the untrained (relatively speaking) replacements, and thus introducing a more desperate situation within the battalion requiring that more replacements be fed in under the same bad conditions. By the end of the operation the replacement problem was becoming acute and it seemed a better solution must be found for the future.

Why did the system break down in this case? Every effort had been made by thorough prior planning to utilize the replacements and the time in the most efficient manner. I believe that the primary reason was because courage, the well-spring which provides the forward movement of troops in a tough assault, depends—within our forces—to a great extent upon the American characteristic of teamwork, and that the described system of battle replacement worked against this principle in that these men entering combat for the first time found themselves not among friends but strangers. Their dominant emotion became one of self preservation rather than a will to advance the team. Aggressiveness was lost. In attempting to encourage aggressiveness, tried battle leaders were forced to unduly hazard themselves and thus casualties were increased among this group—casualties extremely difficult and sometimes impossible to replace for a long time.

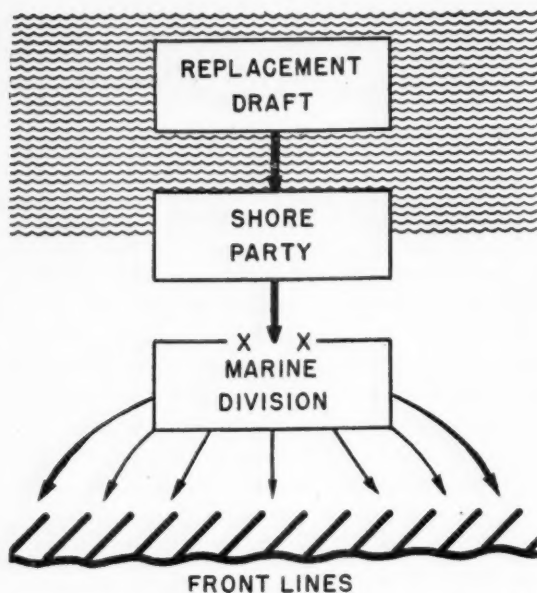
This is not a new thesis. It has been advanced by several writers. In particular it has been realized in the Marine Corps where, first, thorough inculcation of the pride of being a marine is given to every marine, and second, pride of being a member of any particular unit is ingrained in the individual. This thesis is new, however, as applied to replacements. For replacements became a serious problem only in war, in large scale battle and not in peacetime or in small wars. In the unavoidable haste of drafting men who might not otherwise volunteer to be a marine, of giving them intensive basic training, of getting them overseas into a combat unit, there simply is not time to *deeply* ingrain into

every replacement marine sufficient pride in the Corps so that a group of these new men can be thrust into combat and maintain that pride to a sufficient degree to transcend all personal fear. The remedy must lie therefore in the second alternative. The replacement must be possessed of pride in his unit in general and great pride in and camaraderie with his particular leader and squad members. This is the basic solution. But how to accomplish this is a problem in itself, and the real solution therefor lies in the technique of handling and supplying replacements—the replacement method.

✻ BEFORE WE ANALYZE the problem let us see if there is anything we can learn from the experience of the Army during the past war. From the tenor of articles in recent Army periodicals it would seem that there was realization that this factor of teamwork was not developed by their methods either. Generally speaking these reports indicate that the Army used a pipeline system in which there was very little chance for the formation of any kind of group embodying a strong feeling of comradeship, and in which there was no chance for good integration of replacements with their fighting team members except in rare instances when a whole division might be out of the line for a considerable period. The problem thus seems to be universal among infantry forces.

We are concerned with the replacement problem during an amphibious campaign. There are certain characteristics, advantages, and disadvantages peculiar to the replacement of casualties during this form of combat.

We first note that because of the lengthy planning period involved in an amphibious operation, and the extreme importance of the assault on the beach, a landing force will normally enter combat at full strength or better and its component divisions will normally have a varying but rather extensive period of training in between operations. This creates, in effect, a system of pulling divisions out of the line for relatively long periods of time. In relation to replacements, this is an extremely important advantage which must be utilized to the utmost.



System for most Marine operations in World War II was to use replacement drafts initially to supplement the shore party. Replacements were fed into the lines as individuals as casualties occurred.

Another advantage is that oftentimes a landing operation can be aggressively pushed to a successful conclusion in a relatively short time and before any replacements become necessary. It must be emphasized that counting upon this factor in replacement planning would be a highly dangerous procedure, since there is no guarantee the landing will go according to plan or time table.

This brings us to the corollary that when a landing is opposed and casualties occur, they are often high because of the assault nature of the operation, and the imperative need to get established ashore quickly despite all obstacles. Then is when the greatest difficulty arises regarding replacements. It is extremely important in an amphibious operation that the momentum of the attack be maintained, yet the assault on the beach may often operate to bring the attack to a standstill because of resistance encountered and casualties suffered. Then replacements will be needed quickly to restore the forward movement of the attack, but these replacements must be highly trained in a specialized form of warfare. This points up the principle disadvantage which the amphibious element gives to the replacement problem.

There is another disadvantage. Although it

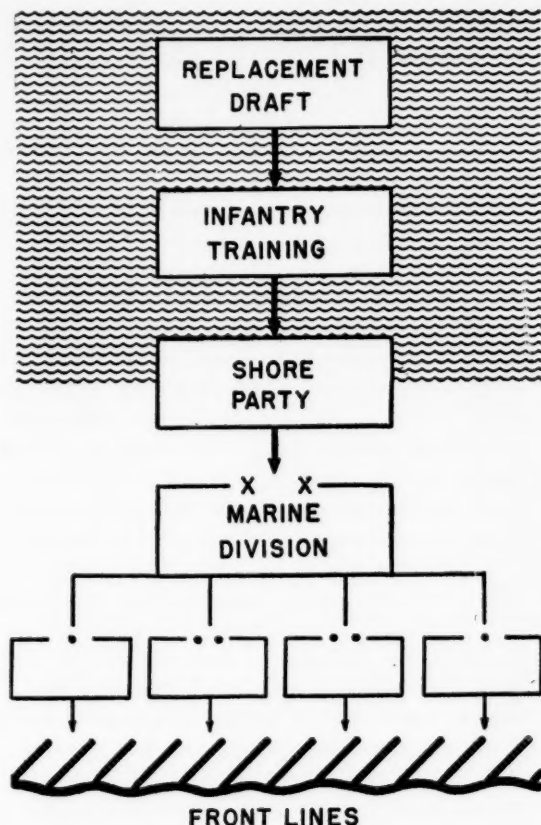
is often possible to give each Marine division its replacements well in advance of the next battle, as pointed out above, still there are limitations in shipping which must be considered. This may mean that the replacements originally assigned the division are all that can be brought to the objective area for a long time. It also means that additional personnel cannot be transported in the assault shipping for shore party work, if replacements are also to be taken. Therefore these replacements will almost always have to perform shore party duties in the initial stages of the assault before they are required to replace battle casualties.

An analysis of all of the above considerations shows, I believe, that an amphibious operation presents a greater opportunity for the satisfactory solution of the replacement problem than does normal land warfare, principally because in such an operation we will have had our replacements with us for a considerable period of time and will have been able to integrate them into the team—if we have adopted the proper method.

It is evident that the solution lies in the proper training and handling of these replacements during the period between reception in the division and entry into combat—a golden period of opportunity presented to us by the peculiarities of the amphibious campaign. *Training is the key.*

There are several methods which have been used or might be used. The first of these is to train the replacements as a group under the infantry, loaning them out for the necessary periods during which shore party training must be given. Under this system, it is contemplated that a leavening of combat veteran noncommissioned officers would be provided the group and that in this way small units (squads and platoons) could be set up within the replacement draft and kept intact. Battle replacement would be accomplished by sending into the line an entire squad or platoon, completely withdrawing the remnants of the unit which they relieve.

THE ADVANTAGES of this method are that training is received under the supervision of the infantry in what may be considered the most important of the two jobs the replacement must accomplish, and that replacements in battle are made by the substitution of entire, fresh units of the size of a squad or platoon, thus relieving a tired, shot-up unit of the same size. The disadvantages of this method are several in number.



A modification of the World War II system was to give the replacement drafts additional infantry training prior to employment as shore party, use them as units to replace shot up squads and platoons.

First, it may be difficult to obtain the required leavening of combat hardened noncommissioned officer mentioned earlier without which the training and discipline of the replacement draft will not come up to standard. Officers in some number would be needed also and might be hard to get. In short, the replacement group assigned to a regiment under this system would tend to become a bob-tailed orphan group rather than an integrated part of the regiment, any battalion, or company. This consideration alone is enough to disqualify this method. In addition are the facts that shore party training would suffer to some extent, and that replacement by squad is not always practicable nor is one squad always shot up so much more than its neighbors that such relief could be accomplished by other than drawing lots.

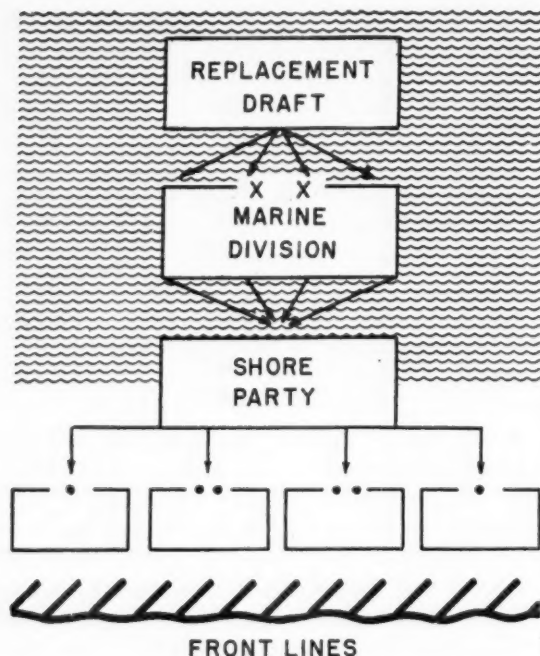
✿ THE SECOND METHOD which might be analyzed is that of training the replacements in a

division school or in a group assigned to the pioneers. This has the obvious advantage of uniform schooling and development of division spirit. But the disadvantages far outweigh the advantages when considering this method. First, the infantry training will never be up to the standard of that received day in and day out with an infantry unit; and second, there is no feeling of integration whatsoever with the infantry as a whole or with any specific infantry unit, nor do the men ever get to know, even by name, any of the men with whom they will later work.

✿ A THIRD METHOD presents itself for handling of replacements. The draft could be broken up and assigned to infantry regiments as overstrength personnel with explicit orders that they be reassigned down to squads. This order would prevent their being formed into special working parties, etc., which would defeat the purpose of assignment as overstrength *infantry*. These men would thus become integrated immediately into a particular squad. Day in and day out they would receive that tough grinding work in the field; and this is the only way in which infantrymen can ever learn the many specialties which they must master. Special schools, or the training of new men in one group, can never impart to them the tricks of the trade of taking pill-boxes, assaulting behind close supporting fires, employing teamed aggressiveness and fire and maneuver to advance the small unit, or, finally, just keeping alive on the battlefield. Such instruction can only be obtained by living with men who have done these things and survived, and training with those men as a part of a team.

True this system may require squads of up to fifteen men during the training period. However, this does not seem to be any disadvantage. It should be as easy to train four BAR men within a squad as three. Two of them would simply function together—the old-timer showing and teaching the new-comer as the squad went through field training and maneuvers.

At intervals, or for a stated period of time, each regiment would have to furnish to division for schooling by the pioneers, a group of stated size which would be the augmentation for the shore party. In the main these men would be those same replacements which we have been discussing, but there is no reason that they should have to be. One of those men might well have proven himself to be the best bazooka man or



The author suggests that replacements be trained prior to the operation as part of the unit they will eventually join. Then as casualties occur the replacements are to be assigned to the units with which they trained. In effect, each squad and platoon would maintain its own replacement reserve.

demolition man in Company A. There is no valid reason why his services should be lost to the company during its assault on the beach in the coming operation. Hence another man is sent from that company in his place—a man who does not possess a skill so essential to the critical leading attack.

There may be some who claim that shore party training will suffer and that this phase of the amphibious operation is too important to slight in that manner. The answer is this: While shore party training received in this manner may not have quite the degree of excellence as that which would be received were the replacements permanently under the supervision of the pioneer battalion, there is little doubt that the training which would be received by sending them to a pioneer school at intervals would be of sufficiently high standard so that the performance of the shore party would not be perceptibly affected. Furthermore the purpose of logistical support is to further the attack of the infantry and therefore any provisions made to keep this

attack moving should receive precedence over other considerations.

AFTER SURVEYING the advantages and disadvantages of the various methods discussed, I believe that the last one given—that of integrating the replacements as individuals with the squads of the infantry—gives the best prospect of successful solution of the problem. When replacement of casualties was required, those men would report back to the squads with which they trained. Naturally casualties would not occur in such a neat pattern that each would be filled by a man who had trained for that exact job in that exact squad. But a great number would, and the supplying of total strangers to a small unit would be kept to a *minimum*, and that is the most important factor in maintaining the impulse of the attack in any group of men. Those men who could not step into the exact job they had held during the training period would in all probability go to the same platoon, at least. A few might have to be assigned only to the same company. However, the over-all effect should be beneficial and a distinct improvement over present methods.

Lest it be thought that this is written as an answer to a problem of the past war only, let it be remembered that all forecasts of the nature of future war are quite in agreement on at least two points: First, that there will be high casualties resulting from the use of weapons already perfected (such as the proximity fuse, the rocket barrage, and the atom bomb) and from those either not yet perfected or which are secret and not known to the average military man; and Second, that to avoid complete casualties from these horrible weapons of the future the greatest possible dispersion will be necessary in all military formations, and that this will increase the awful feeling of loneliness on the battlefield and the fighting man's powerful inner need of being a member of a team of comrades whose every capability and limitation is well known to all members.

Both of these conclusions simply emphasize the problem of battle replacement. Replacements will be even more necessary in the next war, and they must be integrated with their future fighting fellows even more closely than in the past so that the dispersed independent action of small units may be maintained in spite of casualties and the aggressive will to win of the Marine Corps will never be impaired.

US MC

Nuclear Power —Its Military Application

A MILITARY DIGEST

☛ TO DATE NO NUCLEAR MACHINES HAVE BEEN constructed which generate useful power that can be applied in industry. Therefore, the question as to when we will have practical nuclear power plants must of necessity be only answered with rough estimates or good guesses. There are already in existence seven nuclear reactors (chain reacting controlled systems) but only a few of these run at a high power level and none of them are adaptable for the commercial production of power.

Obviously, any estimate as to when we will have nuclear power plants in operation will depend on many factors. The first power piles (plants) will undoubtedly be land installations of experimental type which will be used for test purposes rather than for supplying power as such. It cannot be overemphasized that the outlook for atomic power is not bright. The piles which are being designed are experimental units which will serve as prototypes of prototypes. We are a long way from being able to fix upon a reactor design which can be considered as suitable for the efficient generation of atomic power.

Few scientists believe that the widespread use of nuclear power will come within the next two decades. It is probably true, however, that if there were urgency for a reactor for military application, as for example, for ship propulsion, such a unit might well be designed and constructed in less than this time. In the following sections many of the difficulties in the design and operation of nuclear piles will be explained.

☛ BOTH THE ARMY AIR FORCES AND THE Navy have announced that they are interested in a design of nuclear power plants for the propulsion of aircraft and naval vessels, respectively. The latter application is one which, should it be of sufficient strategic importance to warrant diversion of scarce fissionable material, might be realized on a test basis long before nuclear power

plants could be developed for the Air Forces. It is still too soon to even predict when aircraft may be powered by nuclear energy. In the long run it may be a question as to whether we can afford to expend fissionable material unrecoverably for anything except atomic bombs.

For military purposes, where the high cost of power is not a deterrent, nuclear power plants may well be used as stationary units to supply power at:

A—Remote air bases

B—Secret research laboratories

C—Arctic proving grounds

D—Isolated island posts of strategic importance.

Such power units would be semi-permanent installations.

Nuclear power is potentially an excellent means of driving naval vessels either of the fast surface type or of the submarine class. Here the excessive weight required to shield against radioactivity from the reactor is not prohibitive and substantial progress in nuclear-powered ships may be expected.

One of the prime reasons for seeking nuclear power for military purposes is to obtain a more efficient fuel. While we have not as yet exhausted the means by which we can improve engines for driving naval vessels or propelling rockets with conventional fuels, it is fair to say that we are approaching saturation in this respect. The military man who has had to deal with logistics especially at a remote island air base can appreciate that any fuel which furnishes more power per unit weight is a thing to be cherished. A compact power source using small quantities of fuel has so many military applications that the list of these would be very long. This list is shortened, however, by the fact that most nuclear power plants will only be used to generate large quantities of power. Probably no military application involving less than 10,000 kilowatts of power would ever be given a priority for a nuclear power plant.

By Dr R. E. Lapp

For submarine power, the Navy is interested in nuclear power because the fuel involved does not burn up valuable oxygen and may allow extended sub-surface operations at relatively high speeds.

☛ THE CONCEPT OF CRITICAL SIZE has been introduced in the popular press in connection with the mass of fissionable material required to make an atomic bomb. The same concept holds for nuclear reactors. In this case, the amount of fissionable material required for a "critical" pile is usually much greater than that for an atomic bomb. The reason for this is that most piles will be of a type that utilizes a thermal or slow fission process (i.e., fission due to the absorption of thermal or slow neutrons by the fissionable material) rather than fast fission which is used in the bomb. To slow down the neutrons from the high speed which they have as a result of their fission origin, one uses a light element or moderator. The moderator has to be placed close to the fissionable material in a lattice (heterogeneous) or in a homogeneous arrangement. This interposition of the moderator between lumps or rods of the uranium increases the critical size of the pile so neutrons can more easily escape through the lattice of moderator plus uranium. This is an important factor to consider when planning for a nuclear-powered guided missile.

While it is quite true that a single pound of pure uranium-235 contains energy equivalent to the heat energy in 1,500 tons of coal, it is a very misleading statement when applied to nuclear power application. Partly due to design considerations, partly to structural strength of the fuel rods and also to the accumulation of fission products, it is not possible to completely convert a single pound of U-235 in a pile into fission energy.

In the piles which have been built to date, it is necessary to remove heat from them to prevent excessive temperatures from being reached. To accomplish this, cooling air or water is forced through channels in the piles. It is a fundamental law in physics that if one wishes to generate power most efficiently, one uses as high a temperature heat source as can be obtained. Just as a high waterfall is more effective in producing large amounts of water power so is a pile more efficient in generating power if it operates at high temperature. Our present day materials,

however, cannot stand up at temperatures greater than 1,500° F for at this temperature the theoretical thermodynamic efficiency is already high.

If a relatively compact pile is to yield 10,000 kilowatts of power and not exceed a temperature of 1,500° F, it is obvious that heat must be removed from it very rapidly and efficiently. There are again restrictions on the materials which one can tolerate inside a pile and any coolant (heat transfer medium) must satisfy stringent tests. Liquid metals have been suggested to overcome some heat transfer difficulties and it may be possible to use such a scheme. Gas is not very efficient as a coolant but it might be used to run a closed cycle gas turbine.

We should not be misled by those who naively point out that a single pound of U-235 will give off as much heat as 1,500 tons of coal. Before we jump to the conclusion that uranium will provide cheap and abundant power we have to consider more than energy-equivalence figures.

In order for uranium to supplant coal as a power source, it would have to be available at less than \$15,000 per pound. This assumes pure U-235 which is completely fissioned! We shall not even go any farther into the economics of the situation for until we have actually built nuclear power plants which operate continuously we really have little basis for calculation. For example, it is very clear that chemical processing of partially fissioned fuel rods will be quite costly but we are not sure how often this will have to be done or how it will be done.

☛ ON THE GLOOMY SIDE of the picture is the possibility that the international situation will require the limitation of power piles because of the fact that every nuclear reactor is a potential bomb factory. Even now scientists have advocated that we should be willing to give up atomic power for world peace. No one will deny that were we to follow this recommendation our economic system would remain unaffected and international inspection of illicit atomic bomb manufacture would be greatly simplified. On the other hand, we would be asking time to stand still in this new field which, while difficult in the extreme, holds promise of fruition. We have no precedent that such scientific retrogression can be accomplished. How ironic that man should consider depriving himself of the peaceful use of atomic energy simply because he cannot control its wartime application?

US ☛ MC

Going Overseas?

☛ **GOING OVERSEAS?** Chances are that you will be, sooner or later, if you plan to stay in the Marine Corps. And if you are married, the big question probably is: "Can I take my dependents?"

If you are an officer or staff NCO the answer for most foreign posts is yes. In the lower four pay grades, opportunities for taking dependents overseas are somewhat more restricted.

The GAZETTE has attempted to collect the best available information on living conditions for dependents of marines stationed overseas. This information has been compiled from the latest official information furnished by Headquarters, Marine Corps, as supplemented by the GAZETTE's own survey of overseas conditions.

On the following six pages are printed in tabular form the current housekeeping and living facilities of the principal overseas posts and stations to which marines are attached. It must be pointed out, however, that conditions are continually changing, generally for the better. If you are ordered overseas and you have any specific questions as to facilities for dependents it is best to write to the activity concerned. Most overseas posts require that quarters be assigned or certified before transportation overseas for dependents is authorized.

Of particular value in planning an overseas move is a Navy pamphlet "Overseas Transportation Information." It contains current requirements and allowances concerning passports, immunizations (innoculations and vaccinations), pregnancy, children, physical examinations, arrangements for transportation, baggage, household effects, shipment of automobiles, and life aboard ship. This pamphlet may be obtained by writing the Bureau of Naval Personnel, Navy Department, Washington 25, D. C.

Children, of course, present special problems. It will be observed, however, that most foreign stations offer schooling of acceptable standards and most commis-

saries are adequately stocked with baby foods. If an infant is being taken overseas it is advisable to take along a two months' minimum supply of baby foods plus an adequate stock of diapers, nipples, baby oil, etc.

Private cars, it will be noted, are recommended for most foreign posts. It will also be noted that repair facilities and spare parts are scarce. Therefore, any car should be thoroughly checked by a competent mechanic before being shipped overseas. If the mechanic is dependable, he may recommend a kit of small spare parts that you can expect to need in two years overseas.

Similarly, while medical care is adequate for dependents, it is recommended that a thorough dental examination be had and that all necessary work be performed prior to departure from the United States. At most foreign stations, dental work for dependents is limited to emergency care.

Some overseas stations are conveniently close to banking facilities; others are more isolated. In any case it is well not to be too dependent on personal or traveler's checks as these instruments are sometimes difficult to negotiate.

On household effects it will be noticed that most government quarters are furnished with the essentials, but that linens (sometimes bedding too), kitchen utensils, table ware, radios, electrical appliances, pictures, and the "extras" of housekeeping must be supplied by the occupant. With the exception of the subarctic posts which present problems of their own, most foreign stations to which marines are attached are tropical or semi-tropical. This makes veneered and overstuffed furniture inadvisable as it deteriorates rapidly in a hot, humid climate. By the same token, sterling silver tarnishes quickly due to the warm salt air and thus requires constant attention.

It is wise to establish an account with a department store willing to handle overseas mail orders. A catalog from one of the large mail order houses is very useful.

	ADAK AND KODIAK AND ATTU, ALASKA	ARGENTIA, NEWFOUNDLAND	TRINIDAD, BWI
CLOTHING	Climate cold and damp. Warm clothing, boots, and rain proof clothing necessary. Only limited amount available for purchase locally (Kodiak). Laundry and dry cleaning available.	Medium weight clothing suitable most of the year. Galoshes, raincoat essential. Hats and umbrellas impractical due to winds. Snow suits and stout shoes recommended for children. Slacks, woolen skirts, suits, and fur coats advisable for women. Limited amount of formal clothing and a few summer clothes. Local supplies limited and expensive.	The usual "summer" clothing, preferably washable, is suitable for year-round wear. Dry cleaning limited. Laundry adequate. Men's clothing somewhat higher than U. S. Evening clothes are worn occasionally. Hats are seldom worn. Lightweight woollens, jackets, and sweaters can be comfortably worn during winter months.
QUARTERS AND HOUSEHOLD EFFECTS	Adak: very temporary in nature and not completely furnished. Kodiak: limited number of excellent officer and staff NCO quarters. Linen, curtains, etc., may be drawn on memorandum receipt pending arrival of household effects. Limited rentals in Kodiak seven miles from barracks.	Quarters available to officers and staff NCOs after three to six months' wait. Off post rentals not advised. Quarters furnished with furniture, refrigerators, and electric stoves; all else must be furnished by tenants. Electricity 220 Volts—60 Cycle.	Government quarters should in the near future be able to house 60 per cent of the naval personnel. Long waiting list at present. Civilian rentals exorbitant. Government quarters furnished with refrigerators, stoves, beds, and other basic furnishings. Electricity is 110-220 Volt, 60 Cycle.
AUTOMOBILES	Not recommended due to poor roads and lack of repair facilities; however can be used considerably at Kodiak.	Only shopping center, St. John's, is 84 miles away; accessible by bus, train, and private automobile. Private automobiles recommended. Repair and spare parts available.	Recommended. Annual registration fee and compulsory insurance averages \$70.00 to \$100.00.
FOOD	Fresh food available. Baby foods limited in variety. Fresh milk available everywhere except Attu in limited quantity.	Commissary stocked with staples. Frozen fruits and vegetables usually available. Frozen or fresh milk, canned baby foods, available.	Staples available at commissary. Fresh milk not available, other baby foods obtainable. Fresh fruits and vegetables are produced on Navy-operated farm. Local purchases of foodstuffs not recommended.
SERVANTS	None available.	Available. \$25.00 to \$30.00 per month plus room and board.	Available. Maid service averages \$1.00 per day.
MEDICAL CARE	Adequate for dependents. Dental care limited at Kodiak. Maternity ward available at civilian hospital in Kodiak; Navy maternity ward being established.	Adequate for dependents.	Adequate for dependents.
EDUCATION	Excellent elementary and high school at Kodiak. Fair elementary school at Dutch Harbor and Adak.	To 8th grade in post school. Cost \$6.00 per month 1 child, \$1.00 each additional child. Fair high schools and colleges in St. John's.	Limited but adequate schooling using Calvert plan from grades 1 to 8. Supported by assessments of \$5.00 to \$10.00 per month. Grades 9 to 12 available locally by individual arrangement. Parochial schools best.
RELIGION	All faiths.	Protestant and Catholic on post.	All faiths.
BANKING	Available in Kodiak and Adak.	Available. Canadian and U. S. currency used interchangeably.	U. S. and B.W.I. currency used interchangeably. BWI currency recommended because of rate of exchange (\$1.00 U. S. equals \$1.85 B.W.I.).
RECREATION	All kinds, especially fishing, but limited facilities.	All kinds. Fishing, sled riding, and ice skating are popular.	All kinds available. Swimming, fishing, boating, bowling, tennis, cycling, hiking, and golfing popular. Also dances and movies.
MISCELLANEOUS	Replenishment of supplies is slow. Weather extremely bad except in summer. Considerable rainfall. Airmail service is excellent. Pets permitted. May be brought in accordance with Navy Department General Order No. 248.		

	BALBOA, CANAL ZONE	BERMUDA	GUANTANAMO BAY, CUBA
CLOTHING	Recommended that ample supply clothing be brought to last extended period. Summer clothing and lightweight coat recommended.	For roughly nine months of the year summer uniforms are worn. Officers permitted civilian clothing and summer resort type recommended. For the ladies play suits, slacks suits, and summer washables are recommended. Light weight top coats, rain coats, and woolen suits for cool weather. Comfortable walking shoes. Laundry and dry cleaning available.	Only uniforms required are khaki without blouse and undress whites. Khaki and white clothing available from post supply officer; tailoring available at Post Exchange. Cotton and washable rayon recommended for everyday wear. Light weight woollens, silk dresses, and suits may be worn on cool evenings. Evening dresses are worn at officers' club on Saturdays and official functions. Lightweight coat and sweaters needed during winter months. A little clothing is sold at Ship's Service. Materials and dressmakers available. Adequate dry cleaning. Post laundry.
QUARTERS AND HOUSEHOLD EFFECTS	Quarters available. Some are in low cost housing projects. Furniture and household equipment can be purchased locally. Do not bring expensive furniture as the climate deteriorates it. Bring kitchen utensils and linens. Electrical current is 25 Cycle. Household effects usually arrive 3 to 6 months after dependents.	Limited Government quarters for officers and enlisted. Off station rentals, mostly furnished, range from \$50.00 to \$150.00 per month.	Quarters available for all officers and most staff NCOs within 30 days. Officers: 3 bedrooms, 2 baths, combination living room and dining room, kitchen and service room. Garage with servants' quarters on 2d deck. Enlisted: 2 bedrooms, 1 bath, combination living room and dining room, kitchen and service room. No garage. All quarters furnished including refrigerator and range. Washing machine and fan recommended. Mattresses, pillows, linen, light blankets, table ware, kitchen utensils, and electric iron are essential.
AUTOMOBILES	Recommended. Repair and spare parts available.	Only small, British-type permitted. Also motor bikes (not motor cycles). Bermuda has train, bus, and taxi service.	Recommended. May be shipped from Bayonne, N. J., or Norfolk. Should be in excellent condition.
FOOD	All kinds available.	Well-stocked commissary. Fresh milk available twice weekly.	Commissary well stocked with basic foods. Baby foods limited. No acceptable fresh milk available. Bring seasonings and spices.
SERVANTS	Some available. \$50.00 per month.	Available at nominal salaries.	Available. Maximum wages \$35.00 per month.
MEDICAL CARE	Adequate for dependents.	Good. Excellent "Out Patient" facilities.	Complete facilities except only emergency dental care.
EDUCATION	All kinds available. The schools compare favorably with those in the United States.	Private schools, elementary and preparatory, available from \$50.00 to \$100.00 per year. Also parvish (not parochial) schools.	Schools are accredited. Tuition \$2.00-\$5.00 per pupil per month depending on salary of parent and not to exceed \$20.00 per family. Laboratory fees \$5.00 extra per pupil. Lower kindergarten through twelfth grade. Minimum 3 years, 8 months. Books furnished through 8th grade. High school students purchase books through school. Students supply own notebooks, pencils, etc.
RELIGION	All faiths.	All faiths, on and off base.	All faiths.
BANKING	Available. U. S. currency used.	Available. Pound sterling at \$4.00 rate. Merchants and others gladly accept U. S. currency.	No banking facilities. U. S. currency freely used in Cuba.
RECREATION	All kinds.	All kinds. Swimming, fishing, dancing, cycling popular.	Excellent facilities of all types. Excellent Officers' and Staff NCO clubs. Privates and Corporals' club recently organized.
MISCELLANEOUS	Storage space limited. Do not bring unnecessary items.	Well-stocked ship's service provided toilet necessities.	Guard duty.

	PUERTO RICO	MARINE GARRISON FORCES, PEARL HARBOR, HAWAII	KWAJALEIN, MARSHALL ISLANDS
CLOTHING	Cotton and washable rayons recommended for everyday wear for entire year. Lightweight woolen dresses and suits needed for cool evenings. Cleaning facilities limited. Evening clothes needed occasionally. Some clothing available for purchase locally but expensive.	Summer clothing throughout year. Civilian clothing may be worn off duty. Civilian clothing abundant locally but expensive. Adequate laundry and dry cleaning facilities.	For military personnel washable khaki in large quantities is needed. For dependents, washable clothing only is recommended.
QUARTERS AND HOUSEHOLD EFFECTS	Government and civilian quarters limited at San Juan. Government quarters have basic furnishings including refrigerator and stove. Government furniture can be rented for other quarters. Essential to bring linen, silverware, china, kitchen utensils, blankets, lamps and throw rugs. Electrical current 120 Volts—60 Cycle. Quarters at Roosevelt Roads are Navy rental housing type, rent \$25.00 to \$47.00.	Government quarters insufficient in number. Depending on station wait may be two months to year. Local rentals scarce and expensive. Hotels expensive. Facilities comparable to Continental U. S.	Interim housing units only are available, none of which are built to standard plan. All have been constructed by individuals. Most have living room, bath, kitchen, and one to three bedrooms depending on needs of the original occupant. Electricity (110 Volts, 60 Cycles) and a limited fresh water supply are furnished with all quarters, including electrical refrigerator and electrical range. Kitchen utensils and chinaware limited to galley type equipment. None available for local purchase. Marine Barracks authorized two sets of officers' quarters and five sets of enlisted quarters.
AUTOMOBILES	Strongly recommended. Repair and spare parts available from local dealers in limited quantity.	Adequate bus and taxi service. Government transportation stringently restricted. Private automobile recommended. Local used car prices high.	Privately owned vehicles not authorized or needed.
FOOD	All types available including baby foods; however, bring 2 months' supply baby food with you. Fresh milk limited. Bring baby diapers, bottles, etc.	Navy commissaries well stocked. Fresh meat, eggs, milk, etc., available. Food prices extremely high on local market.	Necessary meat and dry store purchases may be made at Ship's Service. Fresh foods very limited. Frozen fresh milk and some frozen fruits and vegetables are available. Canned baby food both strained and chopped is available.
SERVANTS	Available. \$4.00 to \$9.00 per week.	Wage scale in Hawaii prohibitively high for average officer or NCO.	Available, \$27.00 to \$35.00 per month.
MEDICAL CARE	Adequate. Dental work limited.	Alca Naval Hospital maintains complete dependent's clinic, obstetrical wards, and nursery.	Adequate for dependents.
EDUCATION	Public schools overcrowded, no tuition. Classes 1 through 6 conducted in Spanish. 7 through 12 in English. Private schools available at San Juan, all classes in English. Primary school on base at Roosevelt Roads. Tuition \$10.00 per child per month.	Both station and public schools available. Public schools crowded, private schools expensive.	Kindergarten to 10th grades only.
RELIGION	All faiths.	All faiths, on and off station.	Navy chaplain.
BANKING	Available. U. S. currency used.	Banking facilities readily available, two largest being Bank of Hawaii and Bishop's.	No banks on station. U. S. currency used.
RECREATION	All kinds.	All sorts of recreation including swimming, sailing, fishing, boating, golf, riding, movies, flying, tennis, hunting, night clubs and spectator events.	Theater, library, tennis courts, and clubs.
MISCELLANEOUS	Base at Roosevelt Roads is isolated. Towns in immediate vicinity furnish some services but only city comparable to U. S. standards in San Juan, 50 miles away. Pets can be kept on the station.	Jobs of almost any type are available for dependents; clerical, sales clerks, etc.	Tropical climate. No jobs available for dependents.

	TUTUILA, AMERICAN SAMOA	MIDWAY ISLAND	JOHNSTON ISLAND
CLOTHING	Clothing is supplied on requisition from Pearl Harbor. Khaki is the uniform of the day; however on ceremonial occasions it is the desire of the Commandant that Blues be worn. Male dependents should bring shorts, sport shirts and light weight summer clothing. Female dependents should bring summer washable house dresses. Also cotton formals. No dry cleaning facilities.	In summer the weather is tropical. In the evening it is usually cool, making sleep comfortable. The humidity is high. In winter the strong north winds make it seem cooler than the temperature indicates. The average temperature is about 60 degrees. Greens are worn during December, January, and February. Dependents should bring some sort of light winter clothing to wear during those months.	Mild climate. Cool easterly breeze sweeps island almost constantly. Se vice summer uniforms. For dependents, light summer-weight clothing.
QUARTERS AND HOUSEHOLD EFFECTS	Quarters are furnished for married personnel directly behind the Fita Fita Barracks. CPO Quarters are available for single men. The quarters are furnished with all necessities; however lamps, small tables, etc., are not.	There are quarters for officers and the first three pay grades. Apartments for the enlisted men are in the process of being built. The officers' apartments are almost finished. There are a number of interim quarters, Quonset huts, and converted barracks that are also available.	Two Quonset huts available for commissioned officers. Three Quonset huts available for staff non-commissioned officers.
AUTOMOBILES	The only transportation is privately owned. The demand for jeeps far exceeds the available supply. At present a jeep sells for around \$500.00.	Beaches, commissary, movies, and clubs are all within a ten minute walk of quarters or barracks. There is a bus that operates at half hour intervals during the evening.	Not necessary. Island about a mile long and a half mile wide.
FOOD	Food situation is satisfactory. All essentials are available at the Commissary. Incidentals such as spices, corn meat, etc., are now nonexistent. Greens and vegetables are of a very limited quantity. Nearly all being shipped in.	Considering the isolated position of the island, the food supply is good. Every so often a refrigerator ship comes from San Francisco with frozen food and milk. Fresh vegetables are sent from Pearl Harbor every month by ship, and weekly by plane.	Fresh meat and frozen foods generally available.
SERVANTS	It is possible to hire civilian Samoans for house girls and cooks. House girls usually receive about \$15.00 per month. Cooks from \$30.00 up.	Not available.	None.
MEDICAL CARE	The usual naval medical facilities are here on the station. Dental treatment limited to emergencies.	There is a hospital on the island with sufficient facilities to care for dependents.	Naval Dispensary on island.
EDUCATION	School on the station which is taught by wives of local naval personnel. Nearly all teachers have taught in the states.	There is at present an elementary school which is divided into two sections. High school depends on the number of students available.	None.
RELIGION	At present there is a Protestant chaplain on the station, but the station's complement does not call for one. There are Catholic priests on the island doing missionary work.	A Protestant chaplain is stationed on the island. He holds Sunday school for children and Sunday services. The Catholic chaplain flies from Pearl Harbor once a month and holds Mass on the night he arrives and again on the following morning.	Protestant chaplain permanently stationed. Catholic chaplain celebrates the Mass twice monthly. Jewish services are not held at this facility at present.
BANKING	Local bank with full banking facilities.	None available.	Nearest bank located in Hawaii.
RECREATION	Recreation here is the same as any small post. Swimming and beach parties are very popular. Nightly shows and a two lane bowling alley are available. The social center for married enlisted men is the CPO Club.	For recreation there are two beaches, an enlisted men's club, a staff NCO club and an officers' club, two movies, tennis courts, roller skating rink, bowling alleys and fishing. For spectators, there are basketball, baseball, and softball.	Swimming, tennis and fishing are the principal means of recreation. A theater is located on the island.
MISCELLANEOUS	The only job for dependents is teaching school at the Naval Dependents' School.	The Ship's Store has a few clerical and clerking jobs open to dependents. Quarters are readily assigned to anyone who qualifies as a school teacher.	No jobs available to dependents.

CLOTHING	MARINE BARRACKS, SAIPAN, MARIANAS ISLANDS	MARINE BARRACKS, MGF PAC GUAM, MARIANAS ISLANDS	1ST MARINE BRIGADE, FMF, GUAM, MARIANAS ISLANDS
QUARTERS AND HOUSEHOLD EFFECTS	<p>Marine officers required to wear khaki and white uniforms. No dry cleaning facilities. Dependents should bring a full wardrobe of washable clothes. Some women's and children's wearing apparel available at Ship's Store. Some social affairs formal.</p> <p>All quarters are converted Quonset huts furnished to the standard of the interim housing program, including beds, mattresses, electric or kerosene refrigerator, electric hot-plate or kerosene stove, and "odd lot" furniture. Some glassware and dishes available for local purchase. Advise bringing linens, silver, utensils, lamps and shades, bric-a-brac, washing and sewing machines, electric household devices, and light weight bedding.</p> <p>Distances between living quarters and facilities utilized by families are relatively large, three to ten miles. No public transportation system or taxi service. Practically impossible to purchase a car (or jeep) locally. Government transportation not furnished except in emergency.</p> <p>Both Army and Navy commissary facilities open to Marine dependents. Chilled provisions arrive regularly, but at times are in very short supply. Frozen milk carried in commissaries for children; also powdered milk. Also native grown fruits and vegetables, fresh fish.</p>	<p>It is generally hot during daylight hours. Average rainfall is 86 inches yearly. Cotton clothes with many changes are recommended. Ladies should bring cotton evening dresses. Rainclothes of light texture are imperative. Bring a good supply of sturdy shoes.</p> <p>Quonset hut type quarters are available to nearly all married NCOs and about two thirds of the married officers. BOQ available to single officers.</p>	<p>Recommend bring washable summer clothing. Very little clothing available for purchase at this time. Limited dry cleaning facilities are available. Ground is coral which wears out shoe soles in short time. Bring enough shoes to last during your stay.</p> <p>Quonset huts in limited numbers are being constructed and will be furnished with essential items except for dishes, kitchen utensils, silverware, blankets and linens. Rattan furniture can be purchased through orders placed to the Philippines. Stoves, refrigerators and lamps are in short supply at present time.</p>
FOOD		<p>Transportation for commissary trips is furnished by ComMar, but only for groups—not individuals. It is advisable to bring own transportation. There is a commercial bus line, but it is still in its infancy with characteristic difficulties.</p>	<p>Recommended if car is in excellent mechanical condition. Repair facilities very limited. License fee from \$6.00 to \$20.00 depending on horsepower rating. The 1st Marine Brigade Camp is many miles distant from any other Naval or military installation.</p>
SERVANTS	<p>Situation very unsatisfactory. Very little household help available and tenure of employment uncertain. Under present scale wages average \$0.80 to \$1.00 per day, but workers are largely unskilled and unreliable.</p>	<p>Adequate supplies of all types. Fresh green foods are scarce. Most of the food grown by the natives is for their own consumption. Milk supplies are fair, but there is no fresh milk.</p>	<p>Navy commissary available. Main commissary located about 15 miles from housing area. A branch commissary about seven miles.</p>
MEDICAL CARE	<p>Adequate. Naval Dispensary operates an Out-patient Clinic.</p>	<p>Servants are available, but transportation to and from villages must be provided by the employer, and their wages are very high. One servant will cost the employer \$40.00 to \$50.00 per month.</p>	<p>Limited—\$40.00 to \$50.00 per month, depending on type of service.</p>
EDUCATION	<p>Navy school for dependent children opens this fall. School not yet accredited. Tuition will be charged but rate not yet established.</p>	<p>Very good medical care is provided for dependents. Hospitalization facilities are available.</p>	<p>Medical facilities will be available. No dental facilities (except emergency) for dependents.</p>
RELIGION	<p>All faiths represented locally.</p>	<p>Schools are provided for all except college students.</p>	<p>Elementary and high schools available. Limited curriculum. No kindergarten. Tuition in each school \$5.00 per month for the first pupil, \$3.00 for the second and \$2.00 for the third.</p>
BANKING	<p>Saipan Branch of Bank of Guam offers usual general banking service.</p>	<p>All posts and areas have church services. The excellent Bank of Guam located in Agaña serves the entire island.</p>	<p>Protestant and Catholic chaplains attached to Brigade. Available at Agaña, Guam. U. S. currency used.</p>
RECREATION	<p>Facilities excellent, including surf bathing, boating, fishing, tennis, habermint, bowling, movies, USO shows, dances, and club social affairs.</p>	<p>Recreation is provided in the form of movies, USO shows, and swimming beaches. The only difficulty is transportation to and from the amusement centers.</p>	<p>Limited. Beaches are few and poor. Movies provided. Both officers' and enlisted men's clubs are being constructed. Deep sea fishing is fair.</p>
MISCELLANEOUS	<p>Climate is good for tropical posts and possibly superior to that of most overseas stations. The Marine Barracks operates a laundry for uniforms and flatwork with five to ten day return of bundles. Most of the family laundry is done at home and without native help.</p>	<p>Jobs for dependents are easy to obtain. A shortage of stenographers, skilled and unskilled laborers, makes jobs easy to obtain.</p>	<p>No laundry services at present. Long range construction plans call for a laundry but date of completion unpredictable at present. Guam climate while healthful is very warm and humid. Rain is very frequent. Leathers mould readily. Pets are not recommended.</p>

	SUBIC BAY AND SANGLEY POINT, PHILIPPINES	TSINGTAO, CHINA	YOKOSUKA, JAPAN
CLOTHING.	Light summer clothing that can be laundered is all that is required. White and khaki uniforms for officers. No adequate dry cleaning facilities.	Bring ample supply for cold winters and hot summers. None available for purchase locally. Laundry facilities are available; dry cleaning facilities limited and of poor quality.	Bring ample supply. Climate similar to that of Virginia. Limited supply of clothing rationed through Army Post Exchanges. Materials and dressmakers available locally but few patterns to be had. Laundry and dry cleaning facilities available.
QUARTERS AND HOUSEHOLD EFFECTS	Quonset construction and furnished with essentials. Waiting list at Subic Bay is 1 to 6 months.	No Government quarters available. Privately owned houses rent from \$30.00 to \$350.00 per month. Furniture can be purchased locally at very high prices. Chinese style kitchen stove in each kitchen. Central heating rare. Oil, wood, and coal stoves used for heating. Fuel may be purchased from commissary. Quarters are not obtainable immediately. Rental limits have been established.	Quarters include both houses and apartments. Privately owned houses are not available for rent. Limited amount of furniture can be purchased locally, except stoves and ice boxes. Electricity (110 Volts, 50 Cycles) water, steam heat and hot water furnished with all quarters. Advisable to bring own linens. Not advisable to bring large electrical items, such as washing machines, because of the great fluctuations in current. Rugs and vacuum cleaners issued.
AUTOMOBILES	Bus and jitney service. Roads fair to bad. Private automobiles recommended although repairs and spare parts are scarce and expensive.	Recommended. Repair and spare parts extremely limited.	No surplus jeeps available. Bring own car where possible. Cars and jeeps being sold by transferred personnel are very costly. No spare parts available. Labor for repairs free. Good system of paved roads to all places of interest.
FOOD	Navy commissaries well-stocked with staples and frozen foods including frozen milk and canned baby foods. Native grown vegetables available in local market in season. Some fresh vegetables via refrigerator ship.	Commissary privileges. Limited amount of baby food. Some fresh fruits, vegetables, and frozen fresh milk. Ice available.	Commissary privileges. Baby food, frozen fresh fruits, vegetables and milk may be obtained. Choice supply of meats; storage eggs; fresh vegetables during summer months. Adequate supply of canned goods and staples.
SERVANTS	Servants available at from \$15.00 to \$30.00 a month. A competent cook is paid about \$25.00, a maid or nurse \$15.00.	Available for \$8.00 to \$20.00 per month.	Available, paid by Occupation Government at present time, but possibility of individual families assuming the salary costs after the signing of the Peace Treaty.
MEDICAL CARE	Adequate medical care at Naval Dispensary. Emergency dental care only.	Adequate for dependents.	Adequate for dependents, through Navy Dispensary. Hospital facilities available. Adequate prenatal and maternity care.
EDUCATION	A school for dependents at nominal cost has been organized at Subic Bay.	Elementary and high schools. Cost \$15.00 to \$20.00 per month per student. Facilities limited. In process of being accredited.	Elementary school, through 8th grade, available locally. High school pupils are transported to Army facilities. Charges for tuition vary according to the school funds.
RELIGION	All faiths, on and off station.	Churches available both on and off post.	Both Catholic and Protestant Navy chaplains on station, with services conducted regularly.
BANKING	Adequate civilian banking facilities in Manila (National City Bank), 85 miles from Subic Bay.	U. S. and Chinese currency used. Rate of exchange fluctuates violently.	Available. U. S. Military certificates used on Station. Japanese yen used for local purchases, at exchange rate of 50 yen to \$1.00 U. S.
RECREATION	All kinds of recreation including theatres, clubs, libraries, sports of all kinds, sight seeing, boating, swimming, etc.	All kinds. Beach facilities, golf, swimming, dancing, tennis, bowling. Winter sports limited. Housing must be certified as assigned before dependents are permitted to come.	All kinds available, with several motion picture theaters, various clubs, adequate athletic facilities, swimming pool, approved swimming on Pacific Ocean beaches.
MISCELLANEOUS	A limited number of secretarial and teaching jobs available.		Toilet articles, photo supplies, candies, some luxury items (such as jewelry, some small electrical appliances, and a few items of clothing) available at Post Exchanges.

Message Center

Sloppy "Captain" . . .

DEAR SIR:

In common with most of the recent GAZETTE covers, that on the September issue (depicting a training-sequence, assault of a pillbox) was thoroughly enjoyed by me. I regard this type of cover as one of the live features of the new GAZETTE.

On one particular point, however, I feel that the scene in question does the Marine Corps—or at least one of its cherished traditions—some disservice. This disservice lies in what some of your readers may consider a minor, not to say picayune, point: the posture and stance of the Marine captain who, in the role of instructor, occupies a conspicuous position in the picture. If ever there was a captain who failed to personify the position of the soldier, it is this guy. He is sway-backed and slumped, bent-kneed, and wearing well-wrinkled, baggy trousers, apparently the result of his posture. Obviously, no Marine officer with pride in his appearance would be happy if, under peacetime conditions, the cameraman caught him looking like our hero.

In rejoinder, you may well say two things:

- (1) This is a field training-exercise, not a guard mount, so what does it matter how the captain looks?
- (2) He is imaginary anyway, and it would therefore be pretty difficult to make him change his habits, which are thus no *actual* discredit to any *actual* marine.

Or you may just respond that this whole complaint amounts to little more than piddling.

As you can see, however, I take a very different view. I say that on every occasion on which a ma-

rine appears publicly, especially when conducting training, he should carry himself and dress as if the honor of the Corps depended solely on him. I say further that in any official publication of wide dissemination, specimen individuals should be shown at their best and not during off-moments. I noted with regret during the war that many official publications, training-films and manuals permitted military personnel appearing therein to appear and act thoroughly unmilitary. If the Marine Corps is to maintain its professional and elite tradition, we should take every step, great or small, which will revive the Corps in its prewar soldierly outwardness.

So next time, why not smarten up your cover-design instructor sufficiently that the Marine Corps Schools' academic inspector could rate him a little better than "Fair" on military manner and bearing?

R. D. HEINL, JR.,

Major, USMC

Ed: We referred this matter to the Marine Corps Schools instructor who served as model for the cover captain (it's a pretty good likeness, incidentally, especially around the knees). The model, who in real life is a major, consulted the lineal list and issued a "no comment" statement. In the future, however, we'll spruce up our imaginary marines.

Save the formal dress . . .

DEAR SIR:

Just within the past few days I have learned that there is a plan afoot to do away with another little bit of Marine Corps tradition. We have already lost something of our individuality—which is our most precious possession, by the way—in changing our rank designations and in relinquishing the old Marine Gunner designation in favor of a more commonplace and pentagonal Warrant Officer. There was something hard and tough and dependable about the old title that made it a Marine Corps thing *sui generis*—the newer one, by contrast, sounds emasculated and colorless, a pallied, squeaking echo of the salty old term.

Well, the fine old title has disappeared from the rosters and stays around only in our memories, along with the Platoon Sergeants and Gunnery Sergeants

Each month the GAZETTE will pay five dollars for each letter printed. These pages are intended for comments and corrections on past articles and as a discussion center for pet theories, battle lessons, training expedients, and what have you. Signatures will be withheld if requested.

and Field Musics. They have all been sacrificed to the desire to make things easier for the record keepers—and who in hell or the Marine Corps wants to do things the easy way, if you come right down to it?

The latest gesture in the same general direction is something else again. I am told, and on good authority, that someone is toying with the idea of doing away with the evening dress uniform. It is suggested that we abandon our colorful formal mess dress for something more in line with that adopted by the other services, something faintly and repugantly reminiscent of the working clothes of the movie usher or the drum majorette.

Now there we have something worth fighting about in the matter of tradition, and something that we shall have to fight about. The formal dress is perhaps—almost certainly, in fact,—the oldest and least changed uniform that is still on the active list. It is our present and revered inheritance from the past. It is our one remaining tangible tradition.

The proposed change is being advocated, if you please, on the grounds that the newer style will be more comfortable. Now that, I submit, is nothing but damned nonsense. No uniform worn by man will be comfortable until we adopt the kilt or the *lava-lava*, and at the moment there seems to be little chance of that being done. Therefore, the plea for change in this case is based on a wholly specious and, I think, disingenuous argument, and one that was not, I believe, advanced in good faith.

As a matter of fact, it seems to me that all these changes are of a pattern, parts of a general plan to do away with the individuality of the Marine Corps and bring it into agreement with other branches of the service that carry rifles, march in formation, and theoretically hit the sack at Taps.

That's the way the thing looks to me, and I don't like it. It seems to me, in my more psychic moments, that if changes and so-called improvements continue to be made, it won't be long before this tremendous collection of intransigent characters known as the Marine Corps becomes indistinguishable from lesser men. I stand behind and beside that sturdy watchdog of our integrity, John Corbin, and repeat what he implied in his *Thin Line of Tradition*—"Don't meddle with our traditions!"

For if you meddle with them and change them, you meddle with and change the Corps itself, and if you meddle with that, you break faith with it. Do you want to do that?

JOHN L. ZIMMERMAN,
Captain, USMC



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That Khaki Blouse . . .

DEAR SIRs:

I have read with interest the two recent letters by a MSgt and a private pertaining to our present uniforms. And may I cast my vote the same way as they. Let's do away with the khaki jacket. To put it in the way I've heard it many times (not only by marines but countless civilians too) they are crummy. . . . Be it khaki jacket or the green jacket . . . Both take a wrinkled, baggy look when worn but a short while. Sure the new green jackets are more comfortable but I'm willing to bet that the vast majority of the Corps would much rather prefer the old blouse with fair leather belt. We have changed our style of uniform and this has been for the worse so it wouldn't be too much harder to change back to what it was and for the better.

STANLEY POPOWITZ, SSgt, USMC

ANSWERS to Facts and Figures

From page 14

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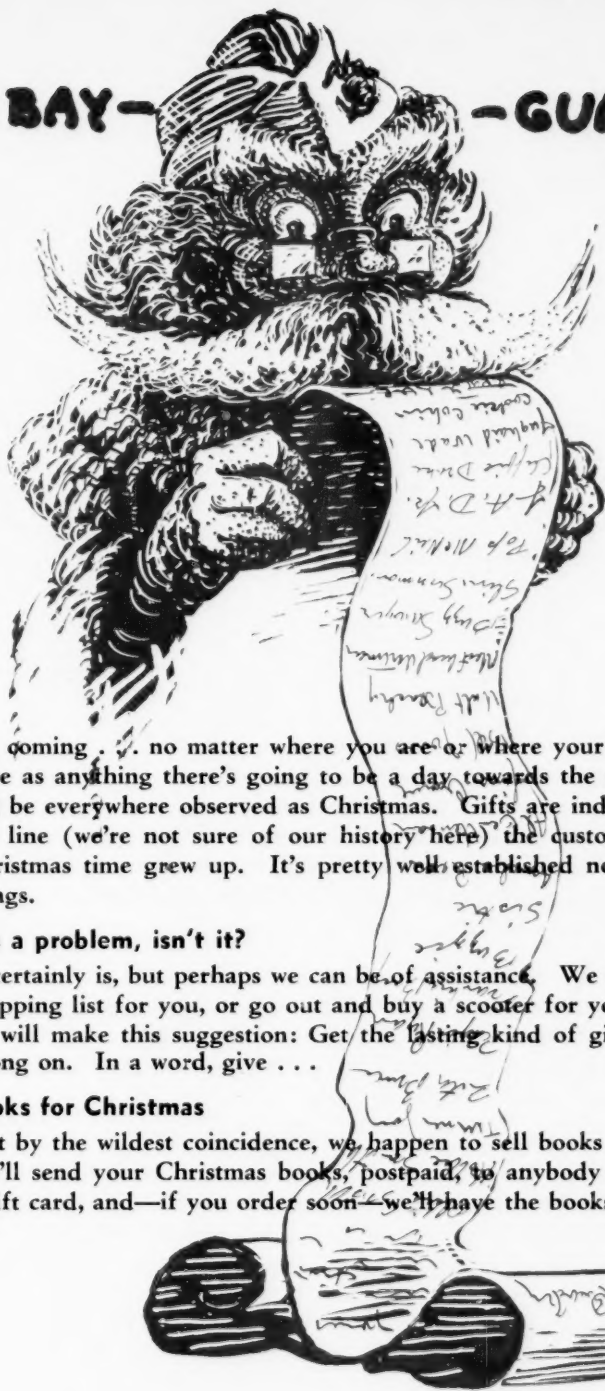
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It's coming. No matter where you are or where your friends and relatives are. Sure as anything there's going to be a day towards the end of next month which will be everywhere observed as Christmas. Gifts are indicated. Somewhere along the line (we're not sure of our history here) the custom of exchanging gifts at Christmas time grew up. It's pretty well established now, and most people give things.

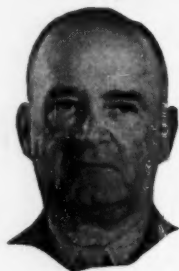
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It certainly is, but perhaps we can be of assistance. We can't make up your whole shopping list for you, or go out and buy a scooter for your nephew in Seattle, but we will make this suggestion: Get the lasting kind of gift, the kind you can't go wrong on. In a word, give . . .

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The Commandant's Anniversary Message

On this 172nd Anniversary of the Marine Corps we draw renewed faith and devotion for our future tasks from the example of the past. We recall that the Continental Congress created our Corps from the embattled citizenry to fill a special need and that in the intervening years it has become known as a highly specialized, thoroughly professional service. Although the United States has engaged in only seven major wars, it has called upon the Marines in almost every year of its existence. Marines have made more than 200 landings, many of them in times of relative peace. Thus it is our tradition to be prepared in either war or peace, since we have found that peace must often be enforced.

We recall also that from the sea-faring traditions of our Corps came the development of modern amphibious warfare, a major contribution to the victory in World War II. Again today we are actively revising and reorganizing our amphibious forces to take advantage of new weapons and new tactics. These peacetime tasks are fully as important as the more stirring deeds of war.

To all Marines of our regular forces, and to our comrades, the citizen Marines of the Marine Corps Reserve, I extend hearty greetings on this anniversary. All of us pledge to our nation our utmost efforts in the coming year, that our honored tradition of service may continue unbroken.

A handwritten signature in dark ink, appearing to read 'A. A. Vandegrift', written in a cursive style.

A. A. VANDEGRIFT
General, U. S. Marine Corps
Commandant of the Marine Corps